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ABSTRACT

This book presents a selection of papers from the annual, international, interdisciplinary conference of the World Association for Case Method Research & Application. Papers are categorized into six areas: (1) "Case Studies and Research" (e.g., subjectivity as a source of insight in case study research, evolution of a teaching case, and preserving the individual case in behavioral research); (2) "Innovative Resources and Case Method Teaching" (e.g., mentoring in the academy, managing diversity in colleges of agriculture, and accountability cases); (3) "Web-based Projects and On-Line Learning" (e.g., teaching and learning online, online instruction via a dynamic roving community, and distance education in business schools); (4) "Case Writing and Use in Various Settings" (e.g., developing gender-based cases, cases from the theory of inverse problems in mathematics, and the power of questions in second language case discussions); (5) "Various Case Method Applications" (e.g., total quality management in education, options for describing individuals in cases, and making simple but effective presentations); and (6) "International Case Studies" (e.g., the event as a case study, better preparation for case discussion using Internet tools, and accounting for intangible assets in partnerships). (SM)

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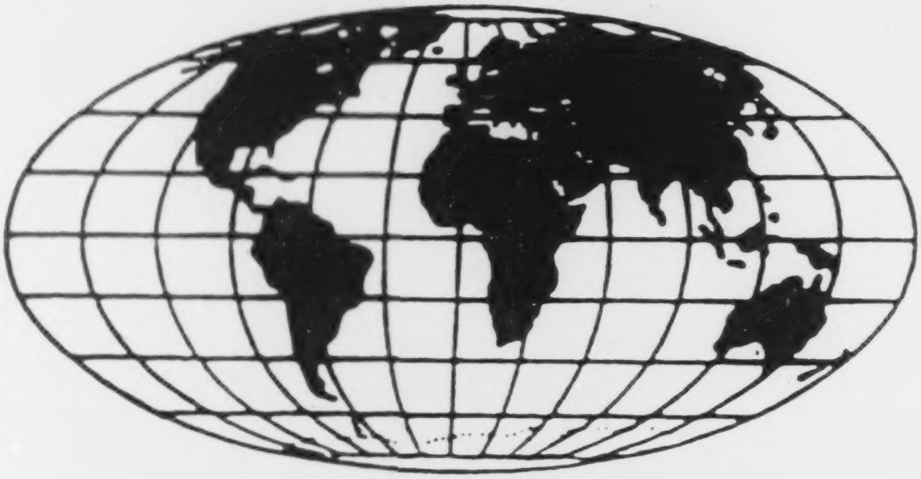
Case Method & Other Techniques



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COMPLEX DEMANDS ON TEACHING REQUIRE INNOVATION

Case Method & Other Techniques

Edited by Hans E. Klein

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PREFACE

This volume continues the annual presentation of 'Selected Papers' resulting from international, interdisciplinary WACRA® conferences devoted to the consideration of the case method, simulations, games, videos, distance education and other interactive methods as research, teaching, training and learning techniques. Included also is a selection of international cases.

During the last 30 years the case method has enjoyed a steady and continuing increase in popularity and use. For example, applications in the field of education have increased in the past several years and continue to increase dramatically. The International Association for Management Education (AACSB), the American Accounting Association and many leaders in university-level business education encourage the use of the case method and other interactive techniques to more effectively reach students, especially undergraduate accounting students who, in recent years, have turned to more "exciting" fields of study.

In its Preamble to Business Accreditation Standards (http://www.aacsb.edu), the AACSB states:

> *The complex demands on management and accounting education mirror the demands on organizations and managers. Challenges come from:*
>
> - *strong and growing global economic forces,*
> - *conflicting values,*
> - *changing technology in products and processes, and*
> - *demographic diversity among employees and customers.*
>
> *In this environment, management education must prepare students to contribute to their organizations and the larger society and to grow personally and professionally throughout their careers. The objective of management education accreditation is to assist programs in meeting these challenges.*
>
> *Accreditation focuses on the quality of educational activities. Standards set demanding but realistic thresholds, challenge schools to pursue continuous improvement, and provide guidance for improvement in educational programs.*
>
> *AACSB member schools* reflect a diverse range of missions. That diversity is a positive characteristic to be fostered, not a disadvantage to be reduced or minimized. Therefore, one of accreditation's guiding principles is the tolerance, and even encouragement, of diverse paths to achieving high quality in management education. Thus, the accreditation process endorses and supports diversity in management education.*
>
> *Acknowledging the diversity within AACSB, all member schools share a common purpose -- the preparation of students to enter useful professional and societal lives. Interaction among students and faculty accomplishes this purpose most directly. Accordingly, the accreditation review focuses on a school's clear determination of its mission, development of its faculty, planning of its curricula, and delivery of its instruction. In these activities, each school must achieve and demonstrate an acceptable level of performance consistent with its overall mission while satisfying AACSB standards. Substantial opportunity remains for schools to differentiate themselves through a variety of activities.*
>
> *Just as managers face rising expectations for their performance and the performance of their organizations, programs in management education also should anticipate rising expectations, even within a given mission. No fixed curriculum, specific set of faculty credentials, single type of faculty performance, or approach to instruction will suffice over time. Accordingly, programs in management education, and the accreditation process, must*

> *focus not only on the present, but also on the preparation for the future. The processes used to strengthen curriculum, develop faculty, improve instruction, and enhance intellectual activity determine the direction and rate of improvement. Thus, these processes play an important role in accreditation, along with the necessary review of inputs and assessment of out-comes. As part of each school's effort to prepare its students for future careers, the school should provide a total educational experience that emphasizes conceptual reasoning, problem-solving skills, and preparation for life-long learning.*

WACRA® conferences are designed to assist faculty and administrators in reaching these goals. Delegates from around the world, including representatives from affiliated case method oriented organizations routinely present their ideas and proposals on interactive, interdisciplinary, intercultural and international teaching and learning.

Presentations and discussions of scholarly work are primary means of communicating knowledge. Today, the environment and the opportunities are increasingly international in scope. Scholarship and research, to continue to fulfill their role in society, have to adapt to this new environment. To facilitate research and promote cooperation internationally and across disciplines, WACRA® - The World Association for Case Method Research & Application and ACT - The Academy for Creative Teaching, conduct international conferences and publish this series of 'Selected Papers' with the purpose of:

- creating an International Forum for the discussion of contemplated, on-going or completed case method research,
- facilitating the exchange of experiences with existing case method applications and
- providing encouragement and an interdisciplinary, international structure for the discussion, development and dissemination of new avenues and approaches to teaching and training.

Months before the infamous "Wall" came down in 1989, WACRA® became actively involved in building bridges to academia in Central and Eastern Europe. This process has enabled colleagues from a variety of Central and Eastern European countries to participate in WACRA® conferences, to present their work to an international audience and to engage in academic discourse and exchange of ideas on a truly international scale.

These contacts contributed to the creation of Case Method Organizations in The Czech Republic and Lithuania: CZACRA - The Czech Association for Case Method Research & Application in Brno, Czech Republic and BACRA - The Baltic Association for Case Method Research & Application in Panevezys, Lithuania. Since then, the initial contacts have evolved into full partnerships between WACRA® and Central and Eastern European institutions and also among WACRA® members from all over the world. Members have collaborated in many projects and are cooperating on case writing, case teaching and training, management consulting, and curricula planning, to name just a few projects.

Delegates from 19 countries attended the conference in Hungary, Budapest. Host of WACRA 2000 was The Central European University, Budapest, Hungary. All papers and contributions presented at the conference were selected through a double blind peer review and out of this pool the papers in this volume were selected for publication. The contributions are arranged in the following broad areas: (1) Case Studies and Research, (2) Innovative Resources and Case Method Teaching, (3) Web-Based Projects and On-Line Learning, (4) Case Writing and Use in Various Settings, (5) Various Case Method Applications, and (6) International Case Studies.

While editing the papers included in this volume, I have tried to maintain the character and thrust intended by the authors, despite the need to make, in some instances, alterations and amendments, in other cases, assisting the author in rewriting the paper. I have retained, to allow for flavor, alternate accepted (British) spelling, and have permitted slightly 'unorthodox' sentence structures to prevail, as long as the meaning was not distorted. In all, I have tried to maintain the author's opinions, views, suggestions and thoughts.

Hans E. Klein, Editor

CHAPTER ONE

SUBJECTIVITY AS A SOURCE OF INSIGHT IN CASE STUDY RESEARCH: A TALE OF THE FIELD

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Abstract

While case study research is an inherently emotionally subjective method of inquiry, and while this subjectivity can be a source of bias if it remains unexamined, the researcher's emotions can also become a precious source of insight if they are acknowledged and explored. This paper discusses the role that researcher's subjective emotional reactions can play in bringing a greater degree of objectivity and a deeper level of understanding to findings obtained through case study research. The methodological implications of this subjectivity are also discussed.

KEYWORDS: Case study research, qualitative methodology, emotions

INTRODUCTION

Case studies are perhaps most commonly thought of and discussed as pedagogic tools; there has traditionally been less emphasis placed on exploring the processes involved in researching the material that is ultimately used in the writing up of such case studies. Even less attention has been paid to the actual field experiences of those who have chosen a case study design to conduct their research on organizations. Yet such designs are frequently used as the research design of choice when the researcher is particularly interested in process issues, in exploring areas about which little is known, or in theory building (Langley, 1999).

The results of case study research, like those obtained through any other method, are reported in the form of articles published in scholarly journals. These articles usually follow certain conventions in terms of structure and tone; the theoretical groundwork is laid, the methodology outlined, and the findings presented and discussed, all as impersonally and objectively as possible. But conducting research, and in particular case study research that focuses on individuals, can be an intensely personal, emotional and subjective experience. The objective of this paper is to bring out these less discussed aspects of case study research, and specifically what can actually happen in the field, using the author's own experience. While case study research is an inherently emotionally subjective method of inquiry, and while this subjectivity can be a source of bias if it remains unexamined, it can also represent a precious source of insight if it is acknowledged and explored. This paper will discuss the role that researcher's subjective reactions can play in bringing a greater degree of objectivity and a deeper level of understanding to findings obtained through such research.

THE STUDY

The research study that is described in this paper, conducted during my doctoral studies, forms the basis of an article (forthcoming) that follows the "standard" presentation protocol for articles such as the ones described above. I present here what lies "behind the scenes" of that article, the actual lived experience of one researcher in the process of conducting a single-case ethnographic study that focused on one individual. In this respect, this paper is an example of what Van Maanen (1988) has referred to as a "confessional" tale of the field. The reflections developed in this paper are inspired by concepts drawn from the psychoanalytic literature; as such, the emotional and highly personal aspects of the experience are emphasized.

The study in question concerned strategic leadership and in particular the role of emotions and character in strategic decision making. It focused on one entrepreneur and his character, the business he had built up, and the interactions within his top management team. Methodologically, it consisted of a single-case design and relied primarily on interviews and non-participant observation for data gathering. The researcher was on site during a nine-month period and developed a relationship with her principal research subject that on examination turned out to be quite complex, and that was quite different from the "objective" relationships between researcher and research subject that are usually presented in journal articles.

In what follows, I will concentrate on two particular aspects of the subjective emotional experience of doing case research involving individuals as subjects: anxiety and mourning. Although there was some overlap, the first of these was most prevalent during the data collection phase, that is, during the entry into the field and the fieldwork conducted on site, while the second was most prevalent during the data analysis and writing phases. Sources of anxiety included the difficulties of finding a site and a subject given the nature of the research question, which had to do with business strategy and character; the particular history of the research subject, as it related to that of the researcher (he was a Holocaust survivor, while I am the daughter of survivors); and the interactions of the personalities of the research subject and the researcher. The need to mourn, on the other hand, was related more to the inevitable process of passing through the different phases of the research (research design, fieldwork, data coding and analysis, writing), each with their particular characteristics.

SOURCES OF ANXIETY DURING DATA COLLECTION

According to Georges Devereux (1967), anxiety is "the most significant and characteristic data of behavioral science research" (p. xvii). In fact, anxiety was never very far during the beginning phases of this study and during the data collection, but its sources were often quite distinct. Unraveling and understanding the sources of this anxiety became crucial for understanding the research experience, and particularly when it came time to interpret the findings.

THE NATURE OF THE RESEARCH QUESTION

The first source of anxiety had to do with the difficulties of finding a research site, given the nature of my research question. Repeatedly, and perhaps understandably, when my potential subjects heard me link the words "the CEO's character" and "business strategy", they would immediately decline my request to use their firm as my research site. When "Ben Levitsky" finally accepted to become my research subject, I was extremely grateful, but also extremely aware of how difficult it would be to find another site in case this one did not work out. As a result, I became inordinately concerned about not making a false step, and hypersensitive to the quality of my relationship with Ben.

This concern was intensified by the fact that even for me, my research question seemed somewhat indiscreet, and made me feel like I was prying, an aspect of case study research to which, by nature, I am particularly sensitive; the voyeuristic aspects of doing case research on an individual were therefore intensified for me, and further highlighted the tenuousness of my relationship with Ben. The importance that the seeming fragility of this relationship had assumed for me from the very beginning of the study would clearly have consequences for the kind of data that I would be able (and willing) to acquire. I believe that my feelings of tenuousness and my anxiety about the "appropriateness" of my study curtailed the types of questions that I felt free to ask, and therefore formed the first boundary or "limitation" of my research. This limitation was somewhat attenuated when about half-way into the study, I decided to search for, and eventually successfully found, a "back-up" site.

THE NATURE OF THE RESEARCH SUBJECT

Who Ben Was For Me

Ben was Hungarian and an orthodox Jew, a survivor of the concentration camps. While the conditions he endured were awful, he also told me that he had learned to become a businessman in the camps, as it was the only way to survive. I myself come from a Hungarian Jewish family, and both my father and grandfather had been interned in, and survived, Nazi labor camps during the war. I have always been intensely interested in and affected by the Holocaust, and at the time of the study, felt it increasingly important to openly affirm my Jewishness. Ben was in his mid seventies when I met him, and because of his war experiences and his age, I could not help but see in him some of my grandfather, with whom I had been very close as a child (what, in psychoanalytic terms, may be described as a typical transference reaction: see Devereux [1967] and Hunt [1989]). I was therefore inclined, even before starting the fieldwork, to like him, although as it turned out he was not an easily likeable person. Ruthless in business, emotionally volatile and prone to anger, stern, but also highly intelligent and perceptive when it came to people, he was a daunting combination. I wanted desperately to be able to like him nonetheless: "I *want* to like Ben," says one of my journal entries, "all the Holocaust stuff, suffering. His overcoming victimization, asserting his 'thereness', like I feel the need to ..." And I was terrified, in this case on a more personal, emotional and unconscious level, of being rejected by him, as is evidenced by some of the dreams I had during the time I was conducting the research. The following is a description of two of these dreams that I noted in my field note journals:

> *Dream 1:*
> A dream sometime over the long weekend: I am at a meal with Ben and a number of other people. It is very relaxed. I feel a part of things. I suspect this is a Passover seder, since one of the fantasies I had was to be invited to his house or his son's for the first seder ... the idea of breaking through, of belonging, of being a part of his life ... and of feeling comfortable, relaxed, normal around this person. A wish that others share?
> *Dream 2:*
> Again, the sense of well-being, of things going well, and then going a bit too far -- too intimate -- I touch Ben's hands in the dream, and he violently recoils and yells at me "I don't want to be touched! Don't touch me!" ... Whose dream is this? ... Getting too close, hurting, to be violently rejected. Breaking through the anxiety – how do we do it? How do I? How does my subject? Is there relief on the other side?

This fear of rejection was transformed into a constant anxiety that I would do the wrong thing and that he would ask me to leave, one that dovetailed neatly with the other anxieties I have described above. The anxiety got so intense at times, that I would literally feel immense relief at not seeing Ben's car in the parking lot upon arriving at my research site in the mornings. The irony of this was not lost on me, as evidenced by the following excerpt from my field notes:

> Ben is in -- I see his car in his spot. I get out of my car with a sinking feeling ... I feel strongly that I'm happier and much more at ease, that my research goes "better" when he is out of the office – wonderful, since he's my research focus!!

To put it mildly, Ben simply terrified me. While I could have attempted to ignore this feeling as not objective and therefore as having no place in the research, I decided not to. My reasoning was that if after being exposed to him for only a short while I felt scared, fragile and tenuous around Ben, it was possible that his managers experienced similar reactions. So one day, when I was speaking to Ben's assistant, I told him that Ben terrified me. His response: "Oh yeah? You're not the only one." This exchange subsequently led to a whole new line of inquiry dealing with Ben's emotional impact on his managers and how they coped with it, and ultimately provided me with a fuller understanding of the impact of Ben's personality on top management team dynamics and strategy making processes in the firm.

Thus far, it is clear that for me, Ben represented something that went beyond that of a "mere" research subject (if such a thing actually exists). But I was not the only one to be anxious; I, too, represented something for Ben that in turn elicited a certain amount of anxiety on his part.

Who I Was For Ben

On a number of occasions, Ben made reference to his lack of formal education and the fact that he came from a "simple" family, and to his pride in accomplishing as much as he had in his life. For example, he underscored the fact that he had succeeded despite his lack of formal education, and that back in Poland, he had held his own "with doctor chemists. They came up with ideas, but how to actually carry them out in a practical way, how to put them to work, they were unable. This was my job." He spoke with disdain of these people who, unlike him, were highly educated but so impractical: "I went to a kind of technical school [and not to a college or university]. More in practice ... because in practice you should be able to avoid accidents and things like that." His emphasis of these issues, coupled with certain references to his mother who had been one of the more educated women in his village, and to his sister who had married a highly-educated man, left the impression that Ben was in fact quite sensitive about the level of education he had been able to achieve.

Faced with someone like the researcher, a doctoral candidate at the time, these anxieties about his level of education may well have been brought to the forefront. For example, as we were setting up our first interview, he asked "How long will you want to talk to me?" When I told him that it would be between one and two hours, and that "actually, it's you who will be doing most of the talking", he seemed surprised and slightly taken aback: "Oh, you want *me* to talk to *you*?" One incident in particular made me aware of the fact that my level of education was troubling to him. It is reproduced below from my field notes:

> *Ben:* Are you doing work about us, or for yourself now?
>
> *Veronika:* About you!
>
> *Ben:* (pointing to the computer). No, you are working for yourself on the computer.
>
> *Veronika:* I'm working on my notes from here. Do you want me to do some work for you? Give me some work to do, and I'll happily do it.
>
> *Ben:* (smiling): You want work? I will ask you to cook for me!
>
> *Order clerk:* She's a good cook!
>
> *Veronika:* (thinking of the daunting task of cooking kosher food) I don't know ...
>
> *Ben:* (to no-one in particular, walking away) She doesn't even know if she's a good cook ...

Here I was, a highly educated doctoral student, yet like those "doctor chemists" back in Poland, unable to do practical things like cooking! Had this been an isolated incident, I would have attributed my own anxious response to my insecurities in the fieldwork situation ("I'm not good enough ..."). But if we look at this incident in light of the satisfaction he seems to have gotten out of being more practical than those impractical "doctor chemists", a pattern seems to emerge, centered around his insecurities about his level of education, and a need to "show up" those who are better educated than he is.

Thus, we were both feeling anxious, insecure and a little exposed, but for quite different reasons. And in fact, we were both observing each other. For example, after my first formal interview with Ben, as I was driving home, I suddenly realized that he had actually found out as much, if not more, about my personal life and my life history than I had about his. Incidents such as these led me to conclude in my field notes that "Ben must be somewhat uncomfortable and anxious to know that I am doing what he also does ... watching minutely the workings of his company, the movements and actions of his people, and of course, himself." They also confirmed what I had been told about him – that he was extremely good at ferreting out information from people.

What Ben and I were feeling, I believe, was a sort of double or mirror anxiety, one that created a certain level of confusion in me, causing me to ask myself whose anxiety it was that I was feeling (or as I put it in my field notes, whose dream I was dreaming), his or my own. From my field notes: "After a while it is hard to tell if all of this is a major projection –transference on the researcher's (my) part, or really based on 'observation'". Knowing that in field research, it was not at all unusual to confound one's feelings for those of one's subjects (Hunt, 1989), and that I personally, even in day-to-day life, had a marked tendency to feel other people's feelings (a facility to fall into what psychoanalytic authors such as Devereux [1967] and Heimann [1950] would describe as counter-transference reactions), I knew I had to make a special effort to try to unravel the sources of this anxiety. This taking apart and "owning" of emotional reactions allowed me to become more objective, and to achieve a better understanding of my subject based on the feelings that he aroused in me (in fact, counter-transference reactions are often used by therapists in clinical settings for just this purpose: Heimann, 1950). In the end, I gained a greater understanding of my subject, myself, and the consequences of our interaction on the research process itself, and confirmed what I had jotted down in my field notes about halfway through the study: "Everything is data".

MOURNING DURING DATA ANALYSIS

One might think that given the emotionally challenging nature of the fieldwork, I would have felt relief in leaving the field, and this is what in fact did happen, at least in part. At the same time, it was difficult to leave the richness of the field for the more austere and emotionally neutral work of data coding. In addition, the anxiety that surrounded the data gathering during this study compounded the qualitative researcher's frequent concern with leaving the field too soon, before enough data has been gathered. While textbooks on qualitative research attempt to deal with this concern by advising that the researcher reach saturation, it often remains unclear to the researcher what "enough" data would actually look like. I know that in my case, not only was I sure that I could have gone farther and been more probing with my questions to Ben, I was also convinced that just one more day, one more interview, one more "good" contact with Ben or with another informant would give me the definitive piece of data that I felt I must still be missing.

Mourning the fieldwork thus consisted in dealing not only with the sense of loss I felt saying goodbye to the people with whom I had established sometimes intense connections, as well as to the day-to-day concrete organizational reality; I had also, and perhaps more importantly, to deal with the feelings of anxiety associated with the sense that I was leaving the field without having all of the data I would have hoped to have. Mourning at this phase of the research therefore consists of coming to accept that one has conducted a less-than-perfect study, and its logical corollary, that one is a less-than-perfect researcher. The realization that although not complete, one's data is adequate, and that although not perfect, one is a "good enough" (to use Winnicott's [1965] expression) researcher, represents the resolution of this particular phase of mourning.

In my own case, once I began to code my data, I entered a phase that, on an emotional level, was almost the diametrical opposite to being in the field. Whereas data gathering had been accompanied by intense feelings of anxiety, the emotionally neutral, even cold, nature of data coding was its very antithesis. This inherent characteristic of the coding process is particularly enhanced by the new computerized tools now available to the qualitative researcher, in the form of qualitative data analysis software such as NUD.IST, the software package that I used for my data coding. The relative facility with which coding can be carried out with the help of this software encourages the researcher to develop an extensive data base containing a large number of codes and categories.

I myself compulsively coded data for several months, deciding the code or category to which a particular word or a phrase best belonged, or whether a new code needed to be created for it. This compulsive, more "rational" and relatively emotionless activity was not only a welcome refuge from the difficult emotions encountered in the field, it was also in a sense a mask. First, because I could generate so many codes and categories, it served to reassure me of the "richness" of my data, to allay my fears that I did not have enough. Then, precisely because it was such a refuge, it effectively cut me off from my own feelings (self-estrangement masking itself as scientific objectivity, as Kleinman & Copp [1993] would put it), and consequently from the meaning of my data, fragmenting it into hundreds of disconnected chunks of information that remained meaningless on their own, waiting to be reshaped and recombined into the story I would later tell.

Only I found that I could not tell it. After I had coded data *ad nauseam* and felt that I had reached the point of diminishing returns, I literally could not write a sentence for three full weeks. In allowing me to submerge my emotions about my subject in a sea of codes and categories, the data coding had, ironically, cut me off from Ben's reality and from access to the story my data could tell, the meaning that it held. I could not write about Ben until I could *feel* his reality once again. In effect, the feeling of being more "in control" and more "professional" that coding and analyzing my data had given me now had to be abandoned, at least to a degree, and to be mourned.

I vividly remember sitting in my office one afternoon in front of my computer, frustrated to no end by my inability to write, and I found myself thinking about Ben and his life. As I did so, he began to emerge for me once again not as "data" but as a real person with a past, someone with whom I had forged a real, albeit problematic, relationship; I began once again to feel for him the mixed feelings I had felt in the field: the empathy for his hard life and terrible experiences, the admiration for his accomplishments, the fear of his moods, the anxiety that given the context, his power over me had generated. But mainly, I felt a deep sadness for this man whose life experiences had made him into the complex and difficult individual he had become, a person with whom it was hard to establish a caring relationship, and I began to cry. I believe that in that moment I began to truly mourn all that could have been, both in Ben's life and in the personal and professional relationship that I had developed with him during the research project. The next day, I began to write, and once I started, there was no stopping it. I wrote 200 pages of what largely amounted to gibberish that needed to be severely edited for an "academic" audience, but text that nonetheless contained the germ of my thesis as well as the essential elements of my forthcoming article in *Organization Studies*.

Orthodoxy would have it that emotions have no place in research, and that as researchers we should eliminate our emotional reactions as much as possible in order to remain objective. Such advice can easily incite us to ignore our emotional reactions to our research subjects completely, or in more psychological terms, to deny that such reactions do indeed exist. This denial, however, will not make us more objective; instead, it will drive our emotions underground, and they will emerge in indirect ways that are perhaps harder to detect and therefore more likely to distort our perceptions and pose an even greater threat to the validity of our findings.

It is true that my emotional reactions affected my findings. But it is only by confronting and trying to understand them and by attempting to examine precisely in which ways they affected my perceptions and reactions that I could arrive at a greater objectivity, as well as a greater understanding of both my subject and my methods. Had I not examined the sources of my own anxiety – had I not asked myself who Ben was for me – I could have easily missed the "unlikable" and "difficult" aspects of Ben's personality that not only I but also his managers found hard to deal with. Had I not examined Ben's anxiety over my presence – had I not asked who I was for him – I might not have unearthed his intense need for recognition, rooted in his desire to prove to himself and to others that he was as good as those much better educated than he. Had I considered my emotionless data coding and analysis to be a triumph of objectivity, I might not have written anything at all; and if I did, I might have missed the flavor of Ben's personality entirely.

In addition, it was precisely because of who I was, with its consequences on the relationship with Ben – what he represented for me, and I for him – that I was able to access certain types of data about my subject. Another researcher, one who was perhaps more self-confident and less worried about being intrusive, someone who was not the daughter of Holocaust survivors – a researcher with a different set of subjective "issues" – would have in all likelihood developed a different kind of relationship with the subject, would have had access to somewhat different data as a consequence, and would perhaps have produced quite a different study.

This last observation raises interesting ontological questions concerning the ability of qualitative research in general to "objectively" depict the world, and underscores the importance of methodological rigor in such research. It implies that wherever possible, such research should be carried out using multiple informants who can corroborate each other's views and by multiple observers working closely together to compare their perceptions. It does not imply, however, that an individual researcher working with an individual subject is always "wrong". Such research holds a mirror to a particular facet of reality, and will always yield a partial truth based on the particularities of the relationship that these two "partners" in the research develop. Methodological rigor in this case means a commitment on the part of the researcher to fully account for how this partial truth has been arrived at, and to communicate the process to the scientific community; the "royal road" to such rigor consists of a thorough recording and examination of the subjective, emotional aspects of the fieldwork. As Kleinman and Copp (1993: 13) have said, "we must consider who we are [and I would add 'and who the other is'] and what we believe when we do fieldwork. Otherwise we might not see how we shape the story."

CONCLUSION

This paper has underscored the need to unravel and understand the subjective, non-rational, emotional reactions that are inevitably experienced by a researcher while conducting case study research, especially research that is focused on individuals with whom the researcher establishes a relationship during the course of the fieldwork. If these reactions are not confronted but simply swept under the rug, we as researchers not only risk compromising our objectivity but also missing an occasion to arrive at a deeper understanding not only of our data, but of the impact of our chosen methods on the types of data that we will be able to gather. Qualitative research in general, and case study research that focuses on individuals in particular, is intrinsically subjective in nature, although as researchers we are often hesitant to admit it for fear of damaging our credibility (Kleinman & Copp, 1993). It has been said, quite rightly, that in such research, the researcher himself or herself becomes the primary research instrument. As such, a researcher's emotional reactions form a part of the calibration of that instrument, and a knowledge of these can only improve the ability of the instrument to do its job, and by extension the quality of research results.

ENDNOTES

1. In order to gain fuller access to their emotional experience in the field, researchers can make a point of faithfully recording, in their field-note journals, their dreams, fantasies and emotional reactions, along with the events occurring in the field at the time that may have elicited these. Kleinman and Copp's (1993) handbook provides other suggestions and examples of the ways in which emotions can be accessed and used in fieldwork.

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THE EVOLUTION OF A TEACHING CASE: A RESEARCHER'S PERSPECTIVE

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Abstract

This paper reports on the development of a research-based teaching case which is designed to help ready expatriates for positions as NETs (Native English Teachers) in secondary schools in Hong Kong. By following the construction of the Lone Dog case, which portrays an Australian NET grappling with a large class of Chinese students, this paper highlights the merits of a collaborative, research process in case development. Decision-forcing cases that deal with the complex demands of real classroom events can help ensure that issues of relevance to teachers are addressed in orientation or professional development programs.

KEYWORDS: case writing, second language teacher education, Chinese students, methodology, secondary schools

THE LONE DOG

As she neared the top of the fifth flight of stairs, Sarah McNay gasped for air and stopped on the walkway to rest. What a climb! She was used to the heat in Australia but the humidity in Hong Kong was unreal! After glancing at her watch, she decided that she had better get a move on. The bell rang and it was time for her 9:30 speaking class to get underway.

"Good morning everyone," called out Sarah as she entered her 2B (Grade 8) class. The students responded by pushing back their chairs and reciting, "Gooood Morlllllliiiiiiing Misssss McNaaaay."

"Very Good. Thank you very much class. I'm sorry but err. Okay. There's a new seating plan. Oh, how wonderful. Oh, but it's in Chinese. Okay. No problem."

The students were sitting in different seats again! There were 39, 26 boys and 13 girls, and she only saw them once every six days for 35 minutes. Last week she added up the numbers of students she taught each cycle - a staggering 850! No wonder she didn't know most of their names! Be positive, she admonished herself and rushed on.

"Oh, now let's see. Err. Okay. Now the seating plan has changed as it often does. But luckily the monitors are very, very good. The monitors can change the seating plan for me so I can try to remember everyone's names."

Sarah turned to the rest of the class and today's lesson finally got underway. "Okay! Now. Okay everybody," said Sarah as she pulled down the screen. "I just wanna check whether we have corrected this." Sarah placed a transparency on the overhead projector and continued, "If we have then that's good and we'll continue on to something else. Can you tell me, did we correct all of this on your sheet? Remember, last class we were doing "making polite requests." Has everyone got those answers?"

"Yessssss," was the chorus.

"Yes? Did we go through and practice speaking them?"

"Yes."

Sarah taught so many sections of the same grade level that sometimes her lessons were a bit of a blur!

"Okay, good. Okay, I just wanted to check in case we did not do that but we have so that's good."

Sarah began writing on the board. "Now we're going to pract- practice today doing these sounds, speaking these sounds-" She was interrupted by the sounds of whispering at the back. "Students Shhhh! The N-sound and the Ng-sound okay? Now we have some words such as *kin*, kin means family okay? So, *kin*. *fin*, a shark's fin." Sarah drew a shark on the board and laughed. "It doesn't look like a shark. It looks like a plane but anyway not to worry." The students joined in her laughter and she continued. "That's a fin, a shark's fin."

A lot of students were now chatting in Cantonese so Sarah interrupted her lesson again. "Shhhh! Now don- I don't want to hear any noise. Just listen. Now please everyone." The chatter continued. "I am waiting now." Sarah glared at the class and pressed on when the noise subsided. "Okay, so, we have the N-sound *fin* as in shark's fin, *gone* as in past tense of go, *ran* as in past tense of run. *Sin* which means a bad thing, a wrong thing to do in English. Alright, so I'm gonna say the words first and then you can say them, okay? Uhh, *kin, fin, gone, ran, sin, thin*. Alright. One, two, three."

"*Kin, fin, gone, ran, sin, thin*" echoed the class.

"Very good! Alright, now. When we say *kin* meaning family your tongue is behind your teeth, just behind your teeth, right?

"Kin," repeated the students in unison.

"That's it. Now when you say *king* as in king and queen, your tongue goes kind of up and back at your throat, alright? So king."

"King."

"Yeah. Now uh your tongue is forward when you say *kin, family, kin, family*. But here, it is back at the top of your throat when you say *king* and queen. King, alright? Everyone say that, *king*."

"King."

"Good. You're very good at that because you say that sound all the time in your language. Okay so I'm going to say these words now. And then you listen and then you say them out on three. *King, finger, gong, rang, sing, and thing*. Okay now. Everybody, one two three."

King, finger, gong, rang, sing, thing." "

Now they're a little bit tricky. I hear *sing* and *fing*, okay. Uh, try and say *sing* and *thing*. Okay, one, two, three."

"*Sing, thing*."

"Very good. Alright, this time I'm going to say the two together an- and you can, you can say them after I say them. *Kin, king, fin, finger, gone, gang, ran, rang, sin, sing, thin, thing*. Okay? Alright, one, two, three." Sarah and the students then repeated them together.

The monitors who were working on the seating chart, handed her the translation. "Have you finished? Oh, thank you very much. This really helps me remember your names."

"Okay," she continued, "I have another sheet for you today." She gave piles of the sheets to the monitors who began passing them out. "Please put up your hand if you do not have a sheet. Everyone should have one sheet each, okay."

"Okay, people! Today, we're going to do a poem. Uh, I don't think I've done a poem with you before. Many poems have words that have the same sound in them. Uh, and that is wha- what we call rhyme. So all these words like, uh, sing and thing, they rhyme because they have the same sound here and there." Sarah pointed to the words on the blackboard. "Okay? And we call that a rhyme." She wrote "rhyme" on the board and continued. "Okay, rhyming words. *Sin* and *thin* are rhyming words because they've got the same sounds here and here. Okay? Now, in this poem we're going to look at- Today we are going to do a poem called "Lone Dog." "Lone Dog." Okay, lone, lone means by yourself, alone, okay? This dog, is alone. He's by himself. Okay? Now, what I want you to do is get your pens, get your pens ready and I want you to circle- I want you to circle all th- the N-sounds, okay? When you hear them in the poem, okay? So circle the N-sounds when you hear them in the poem. I am going to say the poem a few times before I ask you and I'll, you know, say a couple of lines, so you will have plenty of time to hear the N-sounds. I don't want you to circle the Ng-sounds. I want the N-sounds. Okay? As in *kin, fin, gone*. Okay, ready? One, two, three."

Sarah began reading the poem, using gestures and facial expressions to enliven her presentation. Some of the students near the front seemed very attentive but many of the boys at the back were whispering to each other and smirking.

I'm a lean dog, a keen dog, a wild dog, and lone. I'm a rough dog, a tough dog, hunting on my own. I'm a bad dog, a mad dog, teasing silly sheep. I love to sit and bay the moon, to keep fat souls from sleep. I'll never be a lap dog, licking dirty feet. A sleek dog, a meek dog, cringing for my meat.

"You can watch me a little bit too sometimes. Keep looking at the poem but I'll read it to you a few times. You can watch me also." Sarah began to repeat the first stanza with as much enthusiasm as she could muster.

This classroom incident comes from the opening of a case that I have written about the teaching experience of an Australian NET (Native English Teacher) in Hong Kong. Sarah McNay (a pseudonym) is introducing a large group of secondary school students to poetry in an oral English class. Like most NETs, she is trying to cope with large groups of Chinese students in an unfamiliar sociocultural teaching situation.

RATIONALE FOR CASE DEVELOPMENT PROJECT

Sarah McNay came to Hong Kong in August 1998, along with more than three hundred teachers from Australia, Canada, New Zealand, the United States and Great Britain. As part of the Enhanced Native English teacher (NET) scheme, Sarah and most of the other recruits were assigned to teach oral English skills in local secondary schools [Education Commission, 1996, p.18] in order to "help raise English language standards by providing an authentic environment for students to learn and use English as a means of communication" [Hong Kong Institute of Education, 1999, p. 7].

While some of the expatriates readily adjusted to their new environment, others have had difficulty coping. In a survey administered by the Hong Kong Education Convergence, some NETs complained that they had not been adequately prepared for the challenges of teaching very large classes of Chinese students who have little interest in learning English [Chan, 1998; Hong Kong Education Convergence, 1999; Standing Committee on Language Education and Research, 1999].

To better prepare NETs for the linguistic and cultural realities of teaching English in the territory's schools, some of the cases that I have been developing with the support of the Standing Committee on Language Education and Research (SCOLAR) in Hong Kong are focusing on NETs and their dilemmas [Jackson and Chun, 1999; Jackson, forthcoming]. The NET cases are being designed for use in the induction program for NETs that is sponsored by the Hong Kong government. The cases are also being made available to teacher education programs in Hong Kong since they can help local teachers better understand the challenges facing their expatriate colleagues.

In this paper, I describe the case research and writing process that I am using to develop these problem-centred stories of teaching practice. I hope that my account will be of value to other teacher educators and researchers who are considering embarking on a similar venture. To illustrate this creative process, I will focus on the development of the Lone Dog narrative, the decision-forcing case that introduced this paper. Before returning to Sarah McNay and her teaching situation, I will clarify the definition of a case that is guiding my work.

DECISION-FORCING CASES

Teacher educators worldwide face the challenge of equipping pre-service and in-service teachers with experiences, skills, and modes of thinking that will prepare them for the realities of today's classrooms. Case methods of teaching are not new to the field of general teacher education; in fact, cases have a long history in helping prospective teachers make this vital link between theory and practice [Merseth 1991a, 1991b, 1999; Wassermann 1993, 1994]. There is now a small but growing number of international TESOL (teachers of English to speakers of other languages) teacher educators, like myself, who believe that case-based pedagogy can help English as a second or foreign language teachers develop the complex professional skills needed for success in diverse teaching situations.

Today, there are many variations of cases that are used in teacher education programs [Carter 1999; Lynn 1999; Merseth 1991a, 1991b; Shulman, 1996]; the type that I have been using and developing are of the decision-forcing genre [Carter 1999; Harrington 1994; Jackson 1997; Miller and Kantrov 1998; Silverman, Welty and Lyon 1992]. As such, they are designed to enhance the interpersonal, analytical, problem-solving, and decision-making skills of the teachers. Thus, my cases tend to be open-ended, multi-layered narratives that focus on common problems facing "real" teachers (disguised for confidentiality) in English language classrooms.

In my case development project in Hong Kong, NETs serve as "informants," collaborating with me throughout the process; this ensures that their voices are well represented in the narratives. Consequently, my decision-forcing cases tend to be highly contextualized, usually with actual teacher-student, student-student dialogue. While "arm chair" cases can be well written, I believe that field research can lead to more realistic, powerful narratives.

The next section recounts my collaboration with an Australian NET which led to the development of the Lone Dog case, a research-based decision-forcing narrative.

THE CASE DEVELOPMENT PROCESS

IDENTIFICATION OF PROTAGONIST

While attending a seminar on the NET scheme at a local tertiary institution, I met Sarah McNay and her Chinese Panel Teacher (Department Head). As we chatted about the scheme, I introduced my case development project to them. They expressed interest in the project and invited me to visit their secondary school, which was located in a densely populated area in the center of Hong Kong. The following week I obtained official permission in writing from the headmaster of the school so that my bilingual (Chinese-English) research assistant and I could visit and record one of Sarah's English classes. In advance of our visit, Sarah also completed a background information form in which she provided details about her professional qualifications, teaching experience, and current teaching situation. She also completed a written release form, authorizing me to gather data (interviews and class observation) to develop a case for use in professional development or teacher education programs.

SCHOOL VISIT

Two weeks later, we arrived at the school just before lessons got underway. Prior to visiting her class, my research assistant and I met with Sarah in the staffroom. For about twenty minutes, we talked informally about her teaching situation and Sarah provided more details about the Form 2 (Grade 8) class that she had selected for us to observe.

As with almost all of the NETs, Sarah was the only foreigner in her school; the rest of the staff, including the other English specialists, were Chinese and spoke Cantonese as a first language. Sarah, an M.Ed. (Master of Education) graduate in Teaching English as a Second or Other Language (TESOL), had taught ESL (English as a Second Language) in Australia for six years and, overall, had more than twenty years of teaching experience. She had taught a few Chinese students in her home country but this was her first real taste of Asia and her first EFL (English as a Foreign Language) assignment.

As she became comfortable with us, Sarah openly expressed her aspirations and concerns about her NET experience. Her frankness was a key element in this collaborative process. In her interview, Sarah began by pointing out that her Panel Teacher and the other English teachers in her school had been very helpful to her since the day she arrived, nine months earlier. She knew that she was more fortunate than the NETs who were posted to less welcoming schools. She went on to say that she had expected the English of the students to be much worse. Still, she found the classes challenging since students of very different proficiency levels were grouped together, even though they were arranged by similar Band levels (based on examination results). Sarah also expressed frustration about the large classes that she was teaching. She was used to classes of 15 to 25 students in Australia, not 40. She found it very hard to get to know her students, especially since she only saw each class for 35 minutes every six days. It was difficult to have continuity in her programs and she considered this her most serious problem. She saw 850 students every six day cycle, making it next to impossible to remember names. The school year was almost over and the first term was a blur.

She told us that she had selected one of her Form 2 classes for our observation since she was going to try something new with them. The students in this class were a mix of Bands 2-3, that is, they had satisfactory results on the system-wide exams. With this Form 2 class, Sarah had been sticking closely to the syllabus and school text but now she felt comfortable enough with her teaching situation to experiment a bit. In the previous lesson, the students had practiced the [n] and [ng] sounds in their Progressive English textbook. She would now introduce the students to a poem with these sounds to help improve their tone and pronunciation. She was not sure how the lesson would go.

The meeting with Sarah before her lesson was important for several reasons. First, it helped provide background information about her teaching situation and the class to be observed. Second, it gave me the opportunity to make sure that the objectives of my project were clear and that she understood the type of field notes that my research assistant and I would be keeping. I also explained the rationale for audio-recording her lesson and interview. Third, I was able to again stress the importance and value of her input and provide her with the opportunity to ask me additional questions about the process. Finally, Sarah was also told that she would be provided with a copy of the complete transcript of her lesson. A draft of the case and teaching note would also be given to her for her feedback.

CLASSROOM OBSERVATION

My research assistant and I then accompanied Sarah on a long, hot trek to the Form 2 classroom. After Sarah introduced us as visitors from the university, I made my way to the back and my research assistant sat near the windows after she placed the audio recording equipment on a desk at the front. This allowed us two different vantage points to observe the lesson. We remained in our places until the students did some written work; at these times, we circulated to gain a better idea about what was happening in different parts of the room.

On a chart that I had designed to record the event, I sketched the layout of the room, indicating the usual position of the teacher, and the location of all 39 students, using symbols to note whether they were male or female. On the observation sheet, throughout the lesson, I documented the actions as they occurred, copied down boardwork, and, in a separate column, recorded my reactions to various parts of the lesson. My research assistant also filled in observation sheets so that we had two records of the same event. In addition to our field notes, we also obtained a copy of the handout the teacher used. This was labeled and filed with the rest of the case database.

While I had gathered useful background information in my first interview with Sarah, observing one of her classes gave me a much clearer picture of her teaching situation. Seeing thirty-nine Form 2 students crammed into a small, stuffy classroom brought home the challenges she was facing on a daily basis. While she had mentioned that motivation was a problem, actually observing the behavior of her students left a stronger impression- one that I would try to recreate in the written case.

The observation also helped me to identify specific aspects of the lesson to discuss in my post-observation interview with her. While visiting classes is time-consuming, it does help casewriters gain a more realistic perspective about the classroom situation. To fully benefit from the observation, however, it is important to be very clear about the purpose of the visit. Also, accurate, well organized notes supplemented by professional, high quality audio-recordings are essential.

POST-OBSERVATION MEETING

The class my research assistant and I observed took place early in the morning; immediately afterwards, Sarah was able to meet with us in a corner of the staffroom to provide her perspective on the lesson. For the interview, I had prepared a guide with key headings, questions and probes and left some space for my jottings. The notes that I took during the observation also helped me to zero in on specific issues. Although the class had been very exhausting, Sarah talked animatedly for almost thirty-five minutes and the entire interview was recorded with her permission.

My previous experiences in interviewing other English language teachers helped me to make my interview with Sarah more relaxed and productive. While a prepared list of questions is useful, it is not enough. It takes practice to develop the skills and confidence needed to be able to ask appropriate questions and probes, listen empathetically and, at the same time, keep track of the issues. I have found Hansen's advice very helpful. "As your subject speaks, listen for patterns, select key incidents, and return to them. Have your subjects go over and over these key events. You'll find that each new iteration tends to produce greater detail and clarity" [Hansen 1997: 401].

It is important to maintain a positive, non-judgmental relationship with the interviewee and resist the temptation to offer advice and personal opinions. Above all, the teacher should feel at ease enough to freely express her ideas and thoughts about her teaching situation. Later, her expressions can be integrated into the case narrative, further enhancing the accuracy and depth of the case.

While some casewriters advocate detailed note-taking in lieu of audio-recording interviews, I have found that it is easier to establish and maintain rapport with an interviewee, if I can make frequent eye-contact and not interrupt the flow of the discussion by writing lengthy notes. Thus, if the teacher consents, I tape record interviews and jot down only key points on a prepared interview guide.

POST-OBSERVATION ANALYSIS

Immediately after our visit to Sarah's school, my research assistant and I returned to the university to find a quiet place to reflect on the lesson and interviews. To facilitate this, we compared our field notes, including our inferences. This helped to prepare a preliminary list of issues that might be the focus of the case. At this stage, in particular, we noted the challenge Sarah faced in selecting appropriate teaching materials and strategies to motivate a large group of multi-level students who are exam-oriented. I kept a written record of our brainstorming session and this also became part of the database for the Lone Dog case. During this de-briefing session, we also discussed the process itself, noting the interviewing and observation procedures that had worked fine as well as areas that needed to be improved on.

TRANSCRIPTION OF INTERVIEWS AND LESSON

Next, complete transcriptions of the interviews and the classroom event were prepared. To keep the dialogue as natural as possible, false starts and grammatical errors were retained. This would further ensure authenticity in the case. The transcript was then carefully analyzed and cross-referenced with the interviews and fieldnotes. Thus, triangulation was a strong feature of this approach, making use of data from a variety of sources to build a more in-depth understanding of the teaching situation and, hopefully, a richer narrative.

DRAFTING THE CASE

Before drafting the case, I determined that the most appropriate length would be less than ten pages as the primary target for the case would be a full-day workshop in a NET orientation program. The NETs would be given the case a few days before the workshop so they would have ample time to read and reflect on the case before the full-class discussion got underway.

In consultation with Sarah, I identified the issues that would dominate the case: the selection of culturally appropriate material (e.g. poem and pronunciation exercises) and teaching strategies within the constraints of the teaching situation (e.g. large class size, exam-oriented system, multi-level classes, and poor motivation of students towards the learning of English). In particular, I identified several teaching strategies that Sarah used which did not fully engage the students (e.g. singling out individual students before asking a question, losing the attention of much of the rest of the class; and providing students with explanations to new terms instead of encouraging students to try to figure out the meaning from the context). The primary issues that would be highlighted in the Lone Dog case were also identified as some of the most challenging problems facing NETs in the Education Convergence survey [1999].

To draft the case, I then began working directly from the transcript of the lesson, adding an opening paragraph to introduce Sarah and her teaching situation. This section, which opens this paper, was drafted many times since it plays a crucial role in the case. As Hansen [1987, 1997] and Wassermann [1993, 1994] advise, this opening paragraph must help readers to identify with the protagonist and her situation. Ideally, it should compel them to read on to find out more about her dilemma.

Once I had the reader's attention, I could slip in the less dramatic, but essential background information before describing the actual lesson. Since I had already identified the key issues that would be the focus of this case, it was relatively easy to select the relevant dialogue in the transcript. I deleted the rest and then added narration where appropriate to bring in Sarah's perspective. For this, the transcripts of her pre- and post-observation interviews were very useful, enabling me to employ her own words to express her feelings and frustrations.

The following excerpt is taken from the middle of the case. At this stage in the lesson, Sarah is working hard to get the students to understand and become interested in the poem, the "Lone Dog." She is also trying to get the students to repeat the lines of the poem with appropriate expression and is having mixed results. My goal in writing this section was to have the reader visualize Sarah in action as she tries to engage her students. The dialogue between the teacher and her students is natural and authentic, and therefore more compelling. Following the advice of Hansen [1997, p. 294], I have tried to limit the number of "intrusive attributive phrases and unnecessary adverbs" which can make the writing seem rather stilted.

"Okay, class. Let's look at stanza two. Stanza, by the way is a paragraph in a poem. Okay, number two. *I'll never be a lap dog, licking dirty feet. A sleek dog, a meek dog.* Okay, a meek dog is like this," said Sarah as she crouched down. "Okay, uhh- *cringing for my meat.* Cringing is like begging, you know? When people want money they beg for money, so the dog, it cringes, begs." Again, Sarah gestured to help the students understand. "Please, please give me some food. Okay? So this dog says I'll never be like that. *Cringing for my meat. Not for me the fireside.* So this means the fireside at home, at home, like in England or cold countries. Okay we don't have fires in Hong Kong, but in England, it means home. So it says *Not for me at home, the well-filled plate. But shut door, okay the door is shut, and there's a sharp stone.* So people throw stones at him. And *cuff*, cuff is this, when you cuff somebody, th- you kick them, okay, so if you do that to the dog. And *kick*, okay so kick." Sarah made a kicking gesture. "People kick him, and *hate*. What's the opposite word to hate?" There was no response.

"Okay. What's the opposite word to black?"

"White."

"White. Good" replied Sarah, as she wrote both words on the board. "Big?"

"Small."

"Okay, so what's the opposite word to "hate" do you think?"

"Like" volunteered a couple of students.

"Love" called out a boy near the front.

"Love! Very good, well done, well done. Okay, so this is the life that this dog chooses. Okay, let's look at the last paragraph now in stanza three. *Not for me the other dogs, running by my side. Some have run a short while, but none of them would bide. None,* means none of them could do it, okay? They couldn't do what this dog does. *O mine is still the lone trail. A lone path, the hard path, the hard trail, the best. Wild wind, and wild stars, and the hunger of the quest!* Ah, this dog, what do you think he likes to do, do you think he likes to be at home? With his master? Or you think he likes to be out? Looking for something?" Again, there was no response.

"Um. What about, John, you got that last answer. Do you think he likes to be at home or do you think he likes to be out?"

John stared at his sheet, avoiding Sarah's glance.

"What do you think? Looking? Or at home? Do you think he likes to be looking around for things or do you think the dog likes to be at home?" pressed Sarah.

"Home," whispered John.

"Home? Well actually, this dog, he wants to be out in the wild wind. He doesn't like to be at home. Okay, he, he loves to be free. He likes what we call adventure, adventure. He likes excitement. Okay? He likes hunting. He likes to find things, he likes to kill things, okay? Alright! Now, I'm gonna read it through the third time. This time, I'm gonna ask you people after I read to you two or three lines okay? To tell me the N-words okay? And so, the first-, I'll read the first few lines. Maybe ah Apple and Serena, maybe you can help each other, if you're not sure. Alright. *I'm a lean dog, a keen dog, a wild dog, and lone. I'm a rough dog, a tough dog, hunting on my own.*" Okay, come on Kingman, what do you think are some of those N- words?"

"Lean."

"Lean? Yes," responded Sarah as she wrote them on the board. "And?"

"Keen."

"Keen! Very good, Kingman. Yes, and?"

"Lone."

"Own."

"Own and lone, someone else said it, yes, well done." Sarah wrote the words on the board. "Lone and own. Yes, and there's one more begins with *h*."

"Hunting"

"Hunting! Very good! Hunting, yes, hunting. Alright, I hope we have time to actually say the poem together. Alright, next one. We're on to *I'm a bad dog* in the first paragraph, first stanza of the poem. *I'm a bad dog, a mad dog, teasing silly sheep.* Is there any N-words in that line? No. There's no N-words there. Alright, *I love to sit and bay the moon, to keep fat souls from sleep*. Okay, umm, perhaps uh Wai Lam? What do you think?"

"Moon."

"Moon! Very good. Yes, moon. So these are all the N-words. You can circle them, if you, have not got them. I'm sure most of you have. Alright, now." Sarah continued on in the same way with the next stanza, encouraging the students to identify all of the words with the N-sound.

The end of the case required several careful rewrites as I had the following goals in mind. I wanted to stimulate the readers to reflect on Sarah's lesson and also encourage them to look beyond the immediate situation to her next meeting with the 2B students in six days time. How might she better engage the students? What could she do before her next lesson?

In a decision-forcing case, a neat, tidy resolution to the dilemma is not presented. Instead, the case ends at a point where a professional judgement has to be made by the protagonist. The ending is especially important since it must encourage the readers to analyze the teaching situation and offer possible resolutions. For this to occur, the readers must identify with the protagonist and feel the need to help her out. Hopefully, I have accomplished this in the following excerpt, which is taken from the last few paragraphs of the Lone Dog case:

Sarah clapped her hands to keep the rhythm as the students repeated the last line of the poem in unison. "I'm a bad dog, a mad dog, teasing silly sheep. I love to sit and bay the moon, to keep fat souls from sleep."

"Oh, excellent. I think that you all deserve stickers because you're doing so well. You did very well. We did the N-sounds so what we're going to do now is talk to each other, and just find the Ng-words, the Ng-words, alright? So, just get a different pen. Get a red pen, a different colour, and write the N-words in one colour and take a different color and write the Ng-words, okay? Talk to each other and say the words. Okay, so I'm gonna come around to see if you've got all the Ng-words." Just as Sarah began to circulate among the rows, the bell rang to mark the end of the lesson.

"Okay. Fine. Time's up already! Now, I've stickers for all of you because you have read that so well. Just hand the files to me and I'll put stickers on them, okay? Hand the files to me."

After she had all of the files, she smiled at the class. "Goodbye and thanks everyone." The students stood up and in unison, sang out.

"Goooood-bye and thank you, Miiiiiss McNaaaaaay."

"Thank you very much. Practice reading the poem, please. And bring your poem next time," called out Sarah as she left the room.

In the corridor, she stopped briefly to rearrange her materials before starting her long trek down to the second floor for her next Form 2 class. She was rather pleased with her first attempt to use poetry with this group. With students of such varying levels of proficiency in English, it was hard to find material that was pitched just right. She wasn't sure they had really understood the poem but she certainly had tried hard to get the meaning across! Sarah wondered what she could do in the next lesson to get more of the students interested and involved in the poem. So many of them seemed to think that if it wasn't going to be on an exam, it was a waste of time! And some of the boys didn't take anything she did seriously! Before she could reflect further, another bell interrupted her thoughts. She would have to hurry.

I especially like this open-ended format since it can stimulate very lively, engaging discussions in teacher education programs. In NET induction sessions, for example, it can encourage prospective NETs to imagine themselves in a similar situation. They can then draw on their previous experiences, readings, etc. to assess the factors affecting Sarah's teaching situation and suggest ways to improve it.

QUESTIONS FOR THOUGHT AND DISCUSSION

To help NETs focus on the issues in the Lone Dog case and prepare for the full-class case discussion with the case leader, I prepared a list of questions, beginning with the most basic problem-identification ones to the more difficult, cognitively challenging ones.

1. What problems is Sarah facing in her 2B oral English class?
2. What do you think are the reasons for these problems? What constraints might be affecting her teaching situation?
3. What might Sarah have done to better prepare the students for the poem?
4. What can she do in the next lesson to improve the learning situation for her students?
5. What should she do over the long term? Try to think of several different suggestions and include both the strengths and weaknesses of each idea.
6. What would you do if you were assigned to teach this class?
7. What did you learn about yourself as a teacher from analyzing this case?

While questions of this type can be very helpful for teachers who are new to this methodology, like Crawford and Stewart [1993], I believe that there are benefits to having readers search for and identify issues without any guidance. "Although there are many things that can be learned from cases, learning to sort our the facts, finding the problems, and searching for alternative solutions to each of these problems would seem to be the real strength in using the case method and in using cases" [Crawford and Stewart, 1993, p. 391]. Thus, the list of questions for thought and discussion could be optional.

REVISION OF CASE

After drafting the Lone Dog case, I set it aside for several days. When I picked it up again, I was able to look at it with a fresh stance. I then deleted some of the dialogue that did not really deal with the key issues. I also sought the input of the protagonist to help ensure that her voice was accurately portrayed. Since it is common for a casewriter to become very close to a case, my research assistant read the case several times and then provided some helpful feedback. Through the collaborative process of revising the case, new insights were gained and issues clarified. Following the advice of experienced casewriters Hansen [1987, 1997], Herreid [1997/1998] and Welty and Silverman [1997], I further revised the case and guiding questions several times and carefully edited them for clarity and style. At various stages, I focused on my word choice since it greatly impacts on the tone and amount of tension and emotion in the narrative.

Finally, I chose a title for the case that came directly from Sarah's lesson. "Lone Dog" was the name of the poem that she used so it was an easy choice. With other cases, it may be more challenging to come up with titles that are appropriate and eye-catching. Other casewriters, like Silverman et al. (1992] prefer to simply use the name of the protagonist for the title.

PREPARATION OF TEACHING NOTE

Next, I developed a detailed teaching note to provide case leaders with a better understanding of the case and suggest ways to draw teachers into a productive discussion of the issues. When preparing it, I found the advice of the following casewriters particularly useful: Clinton and Camerius [1995], Hansen

[1997], Leenders and Erskine [1989], Lynn [1999], Naumes and Naumes [1999], and Welty and Silverman [1995]. My teaching note for the Lone Dog case includes objectives, a summary, a list of guiding questions and probes, a board outline similar to the type described by Silverman et al. [1992], and a list of readings related to the key issues. Many of the readings provide relevant details about the sociopolitical context of the local teaching situation as well as pedagogical insights. Most importantly for teacher educators new to case-based teaching or this particular teaching context, I also developed detailed answers (possible solutions) to the issues identified in the case. This process actually helped me to refine my questions. The preparation of a teaching note is crucial in the case development process. It can mean the difference between a case that is used repeatedly and one that simply gathers dust on a shelf!

The revised and carefully edited case and teaching note were given to Sarah for additional input. Based on her suggestions, further revisions were made. For example, in some places she pointed out that some of the terms that I used were not ones that were typically used by secondary school teachers. I replaced them with the appropriate jargon, further enhancing the authenticity and realism of the case. At this stage, I also obtained a formal written release for the case.

PILOT-TESTING OF CASE

A crucial part of the case development/research process is the pilot-testing phase. The Lone Dog case will be made available for pilot-testing in the next orientation program for NETs that will be sponsored by the Hong Kong Department of Education. The case leader and the NETs will be asked to complete a survey about their reaction to the case and the full-class discussion. Based on their feedback, further adjustments will be made. After all, it is only when cases are tried and tested in real teacher education classes or professional development sessions that one can determine their strengths and weaknesses. The pilot-testing phase, which will take place in several settings including local teacher education programs, will certainly help with the refinement of Sarah's case and aid the development of subsequent NET cases.

CONCLUSION

Case writing initiatives such as the one described in this paper have the potential to provide more meaningful, context-appropriate material for teacher education or professional development programs. In Hong Kong, cases like the Lone Dog, for example, can help the facilitators in NET orientation programs focus on issues that are of particular relevance to expatriate English language teachers in this Asian setting.

Another important benefit of this project is the voice that the case development process is giving to isolated NETs throughout the territory. In this project the teachers have been encouraged to freely discuss their concerns and feelings in a way that can help other expatriate teachers of English. This reflective activity can also be a very positive, constructive experience for NETs as they take stock of their situation, acknowledging the progress they have made as well as the difficulties they are still facing. The protagonist in the Lone Dog case, for example, was very willing to share her ideas and was concerned about the preparation of other NETs for these challenging posts. In fact, Sarah commented that she wished that she had been better prepared for the transition to teaching EFL in Hong Kong. Revealing her story, was one way that she could make a difference.

Sharing their experiences can also provide local Chinese teachers with a deeper awareness of the challenges facing their new colleagues as they adjust to a new culture and teaching environment. Cases like the Lone Dog can also enable local school administrators and NET officials to better understand the difficulties facing the native English speaking teachers in oral English classes in Hong Kong classrooms. Hopefully, this will help foster more appropriate, useful induction programs at the departmental and school levels.

In addition, the NET cases could be discussed in TESOL teacher education programs in Australia, Canada, Great Britain, etc. or in orientation programs for NETs in their home countries. With doses of reality, a positive and frank exchange of ideas, and the reading and analysis of relevant support material, the NETs who arrive in the territory to take up teaching positions should be better prepared to face the challenges that will soon be a routine part of their professional life.

While collaborative (teacher-researcher) case writing projects are certainly labor intensive, I believe that the potential benefits make them well worth the efforts involved. I hope that this paper inspires projects in other international settings so that more locally relevant case material is made available to better prepare teachers for linguistic and cultural diversity.

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PRESERVING THE INDIVIDUAL CASE IN BEHAVIORAL RESEARCH

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Abstract

This paper provides an historical review and a contemporary analysis of the importance of the individual case to behavioral research. Single-case-research designs are reviewed. Meta-analytic techniques which seek to collapse such bodies of literature, to create a single group-effect statistic, are reviewed and criticized as a threat to the scientific integrity of single-case research.

KEYWORDS: single-case, single-subject, meta-analysis, special education

INTRODUCTION

Throughout the past few decades, research in the fields of psychology and special education has been dominated by the use of group experimental designs. This has persisted in spite of the fact that the founding fathers of these respective fields emphasized idiographic (case study) methodologies as the primary means to pursue scientific knowledge.

Although very different and independent from one another, both Sigmund Freud and Wilhelm Wundt dedicated their research to the study of the individual. Freud's training as a physician led him to value the publication of case studies as the primary support for his theories of psychological development. Wundt, on the other hand, developed a technique, which he termed selbst-beobachtung (self-observation) in which he trained himself to serve as the subject of complicated psychological thought experiments [Hothersall, 1984]. In the field of special education during the late 1800s and early 1900s, Itard chronicled his remedial efforts with Victor, a child who had presumably grown up in nature without benefit of human interaction, in his book The Wild Boy of Aveyron [English translation, 1962].

Interestingly, although from their onset both the fields of psychology and special education cherished the value of the case study approach to theory and practice, group research methodologies increasingly became the more accepted protocol. One reason that prompted this change in orientation was the advances made in descriptive and inferential group statistical procedures. A second reason was the fact that early applications of case study techniques were largely anecdotal, lacking the rigors of careful experimental control and analysis that typify group experimental procedures.

The development of many modern statistical procedures may be best attributed to Sir Francis Galton and his influence on fellow British scientists including Ronald A. Fisher, who developed statistical procedures to analyze agricultural experiments, and Karl Pearson who developed techniques of correlational analysis. These statistical procedures were soon applied to the study of human behavior within the context of group designs. While there was some controversy over the shift from case-based research to group research, group designs clearly gained favor and dominated the fields of psychology and special education up to the 1960s.

However, spurred largely by developments within the field of behavior therapy, researchers became increasingly concerned with evaluating the efficacy of various treatments on individual subjects.
In contrast to earlier case study approaches, however, researchers sought procedures that would enable them to scientifically evaluate their programs through careful control of clearly articulated variables and reliable outcome measures. The development of single-subject research designs filled this need.

As Hersen and Barlow [1978], Kazdin [1980], Tawney and Gast [1984] and many others have noted, there are advantages and disadvantages associated with both single subject and group experimental designs. The question is not "Which is better—single-subject or group designs?", but rather, "For what purpose and under what conditions, which is better—single-subject or group designs?".

At the risk of gross oversimplification, the typical procedures employed in group experimental designs are structured to evaluate whether statistically significant differences exist on some dependent measure between the average performance of two homogeneous group (experimental and control). On the other hand, in single-subject research, attention is given to the idiosyncratic performance of individual subjects who are repeatedly assessed under different experimental conditions.

Clearly, there are situations in which group designs are superior to address the question of concern. For example, in Fisher's work in the agricultural area, the issue of how well any one particular plant produced under a given set of conditions was of little interest. Instead, the question was: what average differences exist between groups of plants exposed to one set of conditions compared to a similar group of plants exposed to different conditions.

Group designs often reflect certain inherent limitations that are especially important at the level of clinical application. Among these are:

1. Practical issues—it is not always feasible to locate a sufficiently large sample of homogeneous subjects experiencing a similar problem.
2. Interpretive issues—clinicians are generally interested in determining the effects of a treatment on individual subjects and are not typically concerned with average differences between treated and untreated groups of subjects.
3. Ethical issues—most group designs require withholding a potentially effective treatment from a large group of subjects.
4. Generality of results issues—the results derived from group studies do not necessarily have direct implications for any one particular subject.

The development of single-subject research designs allows practitioners to directly address the above issues and focus attention upon the individual subject. Perhaps Skinner [1966, p.21] characterized the situation most effectively: "...instead of studying a thousand rats for one hour each, or a hundred rats for ten hours each, the investigator is likely to study one rat for a thousand hours." In the following paragraphs, some of the major single-subject designs are discussed in terms of their basic procedural and interpretive features.

SINGLE-SUBJECT DESIGNS

"A" DESIGN

In many single-subject experimental designs, data are first gathered on the pre-intervention levels of the dependent measure. This level of performance (usually labeled as the "A" phase on graphs) is referred to as baseline and is similar to repeated pretests in group experimental studies. This design is purely descriptive and is used in situations in which there is no intervention being evaluated. Because there is no treatment under investigation it is not surprising that few published articles utilize this design. One interesting exception, however, was the report by Weisberg and Waldrop [1972] who studied the rate at which bills were passed by various sessions of the United States Congress. It was found that the cumulative number of bills passed was very low for three or four months after each session of Congress began, but was followed by a positively accelerated growth until adjournment for vacation. This "scalloped" response pattern associated with fixed interval schedules of reinforcement has long been documented with infra-human subjects under laboratory conditions.

"AB" DESIGN

The "AB" design represents the most basic of all single-subject designs in which a treatment is introduced. As with the "A" design, baseline data (A phase) are gathered until they are stable and have no discernable trend. Following baseline, treatment (B phase) is implemented and repeatedly assessed. Because of the lack of replication and the inability to control for numerous threats to internal and external validity, even if improvement is noted during the treatment phase, it is not possible to confidently attribute the change to the treatment [Alberto & Troutman, 1999; Hersen & Barlow, 1976; Tawney & Gast, 1984]. As such, research that uses this design is rarely published.

"ABA" DESIGNS

As Leitenberg [1973] and Tawney and Gast [1984] have noted, there are two major procedural variations of the ABA design. Both involve the repeated measurement of behavior under three distinct phases. In an "ABA withdrawal" design, a stable and trend-free baseline is established and treatment is then implemented. Assuming a therapeutic magnitude of change has occurred and a stable pattern has been established in this B phase, the treatment is then removed. Experimental control is demonstrated if responding during this second A phase approximates that observed during the original A phase. In an "ABA reversal" design, both the targeted response and an incompatible response are assessed during the initial baseline. After stable and trend-free baseline data have been established for both behaviors, the treatment is then applied to the targeted response during the B phase. If the treatment produces the desired level of change, it is then applied to the incompatable response during the second A phase. Experimental control is demonstrated if both behaviors are changed in clinically significant levels as a result of manipulation of the independent variable.

Although both variations of the ABA design have been reported in the literature, the ABA withdrawal design is much more frequently used. For example, Walker and Buckley [1968] demonstrated the effectiveness of a reinforcement procedure to increase attention to task for an extremely distractible child in a classroom situation and Geller, Paterson, and Talbott [1982] evaluated a program to increase seat belt use by means of an ABA withdrawal design.

In spite of the ability of the ABA designs to demonstrate experimental control, there are some limitations associated with their use. First, some responses (e.g., academic skills) are unlikely to revert back to original baseline levels following initial treatment. Second, ethical concerns preclude a withdrawal or reversal condition in the treatment of some behaviors (e.g., self-injurious behavior). Third, in some situations (e.g., treatment of aggression) it is not desirable to end on a baseline phase. Finally, additional replication offered by expanding to an ABAB design when appropriate greatly enhances the strength of the design.

"ABAB" DESIGNS

According to Tawney and Gast [1984, p.202], "The ABAB design provides the most powerful demonstration of causality available to the applied researcher." With the addition of a second treatment phase to an ABA design, the ethical concern of ending on a baseline phase is addressed. Likewise, the research conclusions are strengthened by twice assessing the efficacy of the treatment. Similar to the ABA designs, however, the same practical and ethical issues are associated with the second A phase. Also similar to ABA designs, ABAB designs may involve either withdrawal or reversal conditions, with withdrawal more frequently used. For example, Lindauer, DeLeon, and Fisher [1999] recently used an ABAB withdrawal design to evaluate the effect of providing an "enriched environment" (e.g., access to items of personal interest) on the percentage of intervals during which various signs of negative affect were exhibited in a 23-year-old woman with severe mental retardation. An ABAB reversal design was used by Baer, Peterson, and Sherman [1967] in their study of imitative behavior among children with mental retardation. Children in this study were reinforced for imitating adult models, later followed by a reversal phase during which reinforcement was provided following a period of time during which no imitation was exhibited.

MULTIPLE BASELINE DESIGNS

Multiple baseline designs offer an attractive alternative to reversal or withdrawal designs in many situations. There are three major variations of the multiple baseline design: across behaviors, across settings, and across subjects. To implement a multiple baseline across behaviors design, it is necessary to identify three or more independent behaviors (behaviors that do not co vary) exhibited by an individual. Each behavior is monitored until baselines are satisfactorily established. Treatment is then introduced on the first behavior while the others remain under baseline conditions. Once the first targeted behavior reliably responds to treatment, the intervention is then applied to the second behavior while the third remains under baseline conditions. Once the second behavior responds to treatment, the intervention is applied to the third behavior. Similar procedural steps are followed in a multiple baseline across settings design, except the same behavior of the same subject is exposed to the treatment sequentially in different environments. Likewise, in a multiple baseline across subjects design, different subjects receive the same treatment in the same setting for the same behavior in a sequential fashion.

Multiple baseline designs are well suited for many applied settings because there is no need to reverse or withdraw a treatment to demonstrate its efficacy. If changes occur in the dependent measures when—and only when—an independent variable is introduced, then one can demonstrate experimental control. Time-related threats to validity (e.g., history, maturation, etc.) are controlled by the design. There are, however, some limitations associated with the design. First, by its very nature, some behaviors, settings, or subjects remain untreated for a rather extended period of time. Second, simultaneously monitoring three or more subjects, settings, or responses can be time and energy consuming. Finally, it is important to select dependent measures that are not likely to co vary; failure to recognize that could result in improvement in as-yet-untreated dependent measures and could result in a truly effective method not being recognized as such.

As Heward [1987, p.195] remarked, "The multiple baseline technique has become the most widely used tactic for experimental design in applied behavior analysis." Indeed, contemporary behavioral literature abounds with examples of the use of the design. For example, Hanley, Piazza, Keeney, Blakeley-Smith, and Worsdell [1998] examined the effect of wrist weights on the self-injurious behavior and multiple adaptive behaviors of a 6-year-old boy with profound mental retardation by the use of a multiple baseline across behaviors design. Ludwig, Gray, and Rowell [1998] used a multiple baseline across settings design to evaluate the effectiveness of a program to increase aluminum can recycling in different buildings at an American university. An example of a multiple baseline across subjects design is found in the study by Rapp, Miltenberger, Long, Elliott, and Lumley [1998] who demonstrated the effectiveness of a habit reversal treatment to reduce chronic hair pulling among three developmentally normal adolescents.

CHANGING CRITERION DESIGN

As Hartmann and Hall [1976] first observed, a changing criterion design is ideally suited in situations intended to evaluate a gradual systematic change in behavior that results from changing the reinforcement criteria in a stepwise fashion. Following an initial baseline assessment, the level of change that will be required for reinforcement at each subsequent phase is determined. Hartmann and Hall [1976] suggest that a minimum of four changes in criterion level be included and the magnitude of criterion changes should not be constant. In addition, they suggest that the length of time spent at different criterion levels should vary and at some point during treatment reverting to a prior criterion level is recommended. Experimental control is demonstrated when responding closely tracks the criterion level that is in effect.

Tawney and Gast [1984] suggest that the changing criterion design is well-suited to evaluate programs designed to shape behaviors that are in the person's repertoire, but are not performed at an acceptable rate. Additionally they note that unlike the ABA or ABAB designs, there is no need to completely withdraw or reverse treatment. In contrast to multiple baseline across behavior design, only one response needs to be monitored. The primary limitation of the design is associated with the relatively subjective process of determining criterion levels. If the changes in criterion levels are extremely small, the behavior may well exceed them; if they are too large, the subject may not be able to achieve them.

Johnston and McLaughlin [1982] used a changing criterion design to systematically increase the percent completion rates of arithmetic assignments with a 7-year-old girl. Although capable of completing the required problems, the student completed an average of only 35% during baseline. The level required to obtain free time was increased by 5% over successive phases. Because the student's behavior closely followed the established criteria, experimental control was demonstrated. More recently, DeLuca and Holborn [1992] utilized a changing criterion design to demonstrate the effectiveness of a program to increase physical exercise of three obese and three nonobese boys.

Although there are other single-subject designs that are reported in the literature, the above discussion has presented those most frequently used. Additionally, it should be noted that under certain circumstances, it is desirable to combine various designs to best address specific research questions. However, irrespective of the particular design used, all share one element in common: attention is given to idiosyncratic effects of treatment at the level of the individual case.

Analysis in single-subject designs has historically been accomplished by a visual inspection of the graphic results with attention given to what these changes mean in the individual's daily functioning. Although there are advanced statistical techniques (e.g., time-series analysis) available for single case analysis [Kazdin, 1978; Kratochwill, 1978] they are rarely reported in the professional literature. Applied interventions strive for results that have clinical, not merely statistical significance. To be deemed a successful treatment, outcomes must be unequivocal (based on the design used) and be of such magnitude to demonstrate obvious improvement in a person's functioning in everyday life. Treatments that result in statistically significant levels of improvement may not meet the criteria of clinical improvement. Recently, however, there has been a shift toward interpreting single-subject designs by aggregating outcomes across a number of studies by the process of meta-analysis.

META-ANALYSIS

GROUP DESIGNS

Meta-analysis is a term used by Glass [1976] to describe the quantitative review of a body of research literature. Since he originally outlined the recommended statistical procedures to be used in such reviews, meta-analysis has become an established, although controversial, way of summarizing large bodies of scientific literature. It is important to note that the application of meta-analytic techniques were almost exclusively reserved for the synthesis of group research for almost a decade. Reasons for the emphasis on the quantitative review of group research are numerous and include the fact that most empirical research in the social sciences was group based. Meta-analysis was originally applied to very large scientific questions, e.g., Is psychotherapy effective? Meta-analyses are based on an effect-size statistic (E.S.) which is the mean of the experimental group minus the mean of the control group, divided by the standard deviation of the control group.

SINGLE-SUBJECT DESIGNS

By the mid-1980s, there was a rapidly growing body of single-case research, and the efforts to create a protocol for the quantitative review of single subject research designs gained momentum. Gingerich [1984] cited the following advantages of such review:

1. To allow for general conclusions about the impact of single subject interventions.

2. To reduce the perception of validity problems related to associated with one single-subject study.
3. To establish sources of variability and create protocols which allow for greater generalizability of findings.
4. To increase the power of statistical measures of change, even where such changes are not readily observable.

The necessity of meta-analysis in the area of single-subject research is debatable. Since most single-subject designs evaluate the effectiveness of treatment interventions graphically, the reviewer is at an advantage in that he may visually synthesize data from a number of studies. While there are a number of published articles, which attack the reliability of such methods of review (e.g., Ottenbacher, 1993), the fact remains that the endeavor itself is not usually overwhelming to experts in a given field. Parsonson and Baer [1978] note that visual analysis of graphical data generally has a built in bias against false positive results. That is, statistical examinations of single subject data often reveal statistically significant trends in data that individual raters do not acknowledge with visual inspection. This higher standard of significance should serve to limit Type I error, which would likely be higher with a statistical analysis.

An important way that single-subject research usually differs from group research is in its sensitivity to exceptional populations. There are many conditions, which are not common enough to lend themselves to carefully controlled group protocols. Single-subject research designs not only permit scientific research in such areas, but they also provide valuable clinical and/or educational information about the subject(s) in the study. The "grouping" of such studies creates an inherent tension. Almost any body of single-subject research, e.g., the effectiveness of social skills training, is bound to be very heterogeneous regarding every factor other than a general interpretation of the variable of interest. The danger is that the most important attributes of single-case research designs, will be lost in the effort to reduce such studies to a common plane. For example, approaching the question, "Is social skills training effective?", and in the process grouping a wide number of studies which look at the outcomes of social skills training using very different methods and studying very different populations may, in fact, obscure the proper conclusion.

Many who advocate the use of meta-analysis acknowledge its possible misuse, and suggest safeguards against some of the problems, which can be easily anticipated. One such safeguard is not to limit the sample of studies to those which have been published. There is a widely recognized bias on the part of editors and peer reviewers for positive research findings. Those articles being published in the literature may be a small unrepresentative sample of the actual research findings in a given area. The studies, which did not produce positive results may have been turned down, or not submitted in the first place. In an attempt to control for this problem, a researcher may seek out unpublished dissertations and theses. The problem is that these studies may represent only a subset of studies, which did not find the desired outcome. Colleagues active in the field may be queried about their awareness of any such unpublished research. However, the fact remains that a systematic bias in the process of making research findings public will create a sampling bias which will skew the results of any quantitative or qualitative literature review.

Glass, McGaw, and Smith [1981] caution researchers that prior to conducting any meta-analysis, scientists should conduct a careful evaluation of the methodological quality of the studies being considered for inclusion. White, Rusch, Kazdin, and Hartmann [1989] outline issues of internal and external validity relevant to intra-subject research designs, including history, maturation, instrumentation, and multiple treatment interference. They suggest that meta-analysts might want to rate the methodological rigor of each study being considered for inclusion along a Likert-type scale, including documentation of the reliability of those ratings.

In describing the methods for completing a meta-analysis, Busk and Serlin [1992] state that, "The critical evaluation of previous research is carried out in the identification of variables that influence the magnitude and direction of the study outcomes. Such identification is performed consistently for each study in the review, as opposed to the more inconsistent qualitative reviews of literature" [p. 189]. These authors go on to recommend that any published meta-analysis of single-subject research include a listing of all references used, the procedures for assembling the existing literature, criteria for inclusion in the study; the relevant variables extracted from each study, methods for computing the effect size, and the statistical methods used to investigate the influential variables [Busk & Serlin, 1992].

The pursuit of a widely accepted E.S. for single-case research has been difficult. A number of researchers have stepped forward with suggestions for statistics, which may be useful in aggregating data from single-subject research. Perhaps the simplest method is to apply the Glass et al. [1981] *d* index for group research to single-subject protocols. That is, to subtract the mean of the baseline phase from the mean of the treatment phase and divide by the standard deviation of the baseline phase. Such a statistic would yield evidence as to whether or not there is a statistically significant difference in the means of the measured dependent variable across phases [Kromrey & Foster-Johnson, 1996]. This statistic can be easily compromised by the existence of trends in the data.

White et al. [1989] compute *d* as noted above, with the exception of using the pooled standard deviation of the baseline and treatment phases in the denominator. When a trend exists, they suggest switching to an equation where mean of the treatment phase is replaced by the "predicted level of the target measure on the last day of the treatment phase, estimated from the within phase regression of the dependent measure on day of observation" [p. 289] and the mean of the baseline phase is replaced with the "predicted level of the target measure on the last day of the control phase estimated from the within phase regression of the target measure on day of observation" [p.289]. The pooled standard deviation is replaced by the "standard deviation *around* the best-fit linear trend line across the data from the A and B phases" [p. 289].

Center, Skiba, and Casey [1985-86] deal with the problem of mean shift vs. trend, by suggesting three different equations of Effect Size. One measures the change in mean, one measures the change in slope, and third combines the previous two, for an overall ES.

Allison and Gorman [1993] point out both advantages and disadvantages in the Center et al. [1985-86] formulas, and suggest an alternative 10-step algorithm, which directs the meta-analyst in dealing with problems of trend as they arise. This algorithm, like the corrected formulas of White et al. [1989] and Center et al. [1985-86] become quite complicated and are beyond the purview of this review. However, the problems presented by cumbersome statistical formulas are not to be ignored and represent serious limitations to the attractiveness of quantitative literature reviews.

Swanson, Hoskyn, and Lee [1999] suggest an alternative method to calculate an effect size. Their method minimizes the effect of trend by reducing the number of data points analyzed in computing *d* to the last three of any given phase. While this would have the desired effect of minimizing the calculated trend, we are troubled by the means by which this is achieved. A sound visual analysis would never ignore data that are present. Trends in the subject's performance over time are critically important outcomes and it is dubious that they should be artificially reduced by a statistical procedure.

In 1987, Scruggs, Mastropieri, and Casto introduced a procedure for meta-analyzing single-subject research that has since become widely used. The statistic they developed is the "percentage of non-overlapping data"(PND). PND is easily calculated by first identifying the highest point in baseline (or lowest point if the treatment is intended to reduce behavior). The number of points in the treatment phase which are above (or below, in a reductive study) the identified baseline point are then counted and divided by the total number of points in the treatment phase. This quotient, multiplied by 100, results in the PND. Scruggs et al. [1987] and Scruggs and Mastropieri [1994, 1998] have vehemently defended this nonparametric measure on the basis of its simplicity, meaningfulness, objectivity, and avoidance of problems associated with the parametric procedures noted earlier (e.g., limited number of baseline points in most studies and questionable assumptions regarding normality, data independence, and homogeneity).

Methodological criticisms of the PND procedure have, however, been voiced [Allison & Gorman, 1993; Faith, Allison, & Gorman, 1996; Salzberg, Strain, & Baer, 1987; White, 1987]. Allison and Gorman [1993] flatly state the "...PND cannot be recommended for several reasons" [p.622]. Briefly, the major problems these authors note is that the PND is likely to misrepresent effects when outlying data points are present in baseline data, when treatment has a counter-therapeutic effect, and when trend is present in the data. To this list we would also like to add the following. In certain applications (for example, studies using a changing criterion design) no matter how effective the treatment may be, PND results will be dismal. Since the first few criterion levels are usually determined by the average performance during baseline, the resultant PND will always be low.

While these methodological considerations are important, our fundamental concern is more conceptual. To loose the wealth of information contained in well-designed case studies to the "aggregate effect" represented in meta-analysis is counterproductive to providing effective individualized treatment. As Salzberg et al. [1987, p.48] noted "In reducing long and complex studies to a one-number summary, meta-analysis does not "synthesize" knowledge, it disposes of it!"

CONCLUSION

From their inception, the fields of psychology and education have experienced a tension between the use of group vs. individual research methods. While the trend has been toward favoring group-research designs, single-subject research has created and maintained a viable niche. Scientific study of the individual provides information that is not available through group-research practices. Still, there are new threats to the scientific integrity of single-subject research, in the form of meta-analysis. The compulsive desire to reduce all things human to a group statistic comes at a price to individual clinical/educational practice and social policy decisions.

These problems begin with the very rationale of meta-analysis, and whether we are adding to the knowledge base or subtracting from it. Lelorier, Gregoire, Benhaddad, Lapierre, and Derderian [1997] compared the ability of published meta-analyses to predict the outcome of given medical interventions, which were subsequently being studied in large randomized, controlled trials. Such studies are considered to be the "gold standard" of clinical research and all those included in this study were subsequently published in either the New England Journal of Medicine, Lancet, the Annals of Internal Medicine or the Journal of the American Medical Association. They found that the outcomes of the large trials were not accurately predicted by the existing meta-analyses 35 percent of the time. This should not come as a surprise. Even when executed according to all of the statistical rules, meta-analyses are only going to be as good as the studies they aggregate. There is nothing inherent in the meta-analytic process that improves the basic scientific methods observed in the original studies. Feinstein [1995] states, "The idea of getting something for nothing, while simultaneously ignoring established scientific principles, produces an immediate analogy to the alchemy that existed before modern scientific chemistry." [p. 71].

It is our conviction that this trend toward increased use of meta-analytic techniques to integrate single-subject research is most troubling. Along with the obvious loss of the individual case, other major problems include:

1. Graphic displays of individual performance are devoured by a single statistic. The richness of details provided by these graphs relative to rate of acquisition, extent of generalization, etc. is lost.
2. The most common statistical procedures used to meta-analyze single-subject research are suspect.
3. The underlying logic of meta-analyzing single-subject research flies in the face of the basic rationale for single-case studies. That is, single case research is intended to result in clinical decisions regarding individual subjects, not to produce generalizations for groups.
4. Suggestions made by the results of meta-analysis of single-subject studies may have adverse policy implications; for example, the current labeling of social skills training programs as ineffective [Mathur, Kavale, Quinn, Forness, & Rutherford, 1998] in spite of much evidence to the contrary.

Are such factors at play in the attempts to meta-analyze single subject research? In order to minimize the loss of important data, advocates of the meta-analysis of single subject research have set forth rigorous guidelines to be followed when executing such analyses (see discussion above). It has been our observation that these guidelines are rarely followed in their entirety among the researchers most active in this field. On the contrary, very basic information such as a listing of the studies included in a published meta-analysis may or may not be provided (e.g., Mathur, Kavale, Quinn, Forness, & Rutherford, 1998).

Ironically, it is precisely the lack of a straightforward means of aggregating single-case data that has led to a situation where the weakest of published Effect Sizes, i.e., PND has come to win the day, because of its simplicity. As far back as 1987, Salzberg, Strain, and Baer made this observation regarding the PND method, "To reduce most single-subject studies to one-number summaries of performance in each condition is already a gross reduction of their function as experimental designs; to reduce them still further to a one-number summary of the percentage of overlap to be seen across those conditions misses the point of the design entirely" [p. 43]. So, we ask the rhetorical question, why meta-analyze single subject research at all? Are we alchemists in search of a pot of gold, or do we remain uneasy with the value of research based on a sample size of one?

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USING SOFTWARE QUALITATIVE ANALYSIS WHILE PRESERVING EXPLORATORY RICHNESS: THE EXPERIENCE FROM TWO CONTRASTING CASES

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Abstract

In a research project, disclosing methodological choices is particularly important for judging a project's quality, especially if it is an inductive, grounded-theory-based research. Data analysis is a central step in this process. Using the computer to support data analysis has been praised as much as it has been critiqued with respect to its usefulness in qualitative research. This paper will examine practical as well as theoretical issues regarding the use of a computer tool in two case studies. These two independent studies, both conducted in the management field, have converged towards similar procedures of data analysis using the same computer tool. Arguments are presented to show that data exploratory richness is not only preserved but also can be enhanced.

KEYWORDS: Inductive research, Case studies, Computer Assisted Qualitative Data Analysis Software (CAQDAS), Validity and Reliability Issues, Data Richness.

INTRODUCTION

Qualitative research designs cannot be taken off a shelf. They must be developed in relation to the problem at hand and are subject to modification during the research process. Given two researchers conducting the same research project, they may not draw the same conclusions due to variance in data collection and analysis, research object and design, domain of application and the researcher's knowledge base. The concepts of validity and reliability are always at stake, especially in qualitative research.

Within the last few years, many different computer tools have been developed to support qualitative data analysis, they are designated by the acronym CAQDAS which means Computer Assisted Qualitative Data Analysis Software. Over the years, these tools have become quite practical and more widely used. This has resulted in a newly enlivened debate surrounding validity and reliability, to the extent that the impact of computer tools on the research process and its results is examined. Many praise these tools for significantly contributing to and enhancing the scientific rigor of qualitative research, whereas others believe these tools cannot be used without detrimental effect on exploratory richness in qualitative enquiry.

The aim of this paper is therefore to detect critical points in the qualitative case study method -

especially in data analysis - which could be enhanced by using computer software. More specifically, the paper examines how exploratory richness can be preserved in qualitative research despite using a "formalizing tool". This is done on the grounds of the example of two research projects that differ significantly with respect to their objects and contents, but converge towards using similar methods of processing data analysis.

This paper is organized as follows. In the first part of the paper, we discuss concerns surrounding the use of computer tools in qualitative research. Secondly, we will align these challenges with the crucial elements a qualitative researcher should consider in order to perform good research. The second part of the paper will be devoted to the two research projects previously introduced. These projects have been conducted separately, in two different countries. They interconnect with the computer tool chosen to support data analysis in both projects. After a short introduction of the projects, emphasis will be placed on the reasons for choosing ATLAS/ti as the adequate software, the capabilities of this software, and the consequences of that choice. We will report on both experiences and on the challenges associated with the use of the selected software. We will demonstrate how a CAQDAS tool such as ATLAS/ti could improve the overall quality of a research project by preserving data richness and by allowing a meticulous and comprehensive exploration of these data.

CAQDAS AND QUALITATIVE RESEARCH

A debate rages among qualitative researchers as to the relevance of computer software for fieldwork. In the past 15 years, a number of programs have been developed and the use of CAQDAS has rapidly increased [e.g. Weitzman and Miles 1995; Fielding and Lee 1998]. This phenomenon divides the discipline into two camps. Many qualitative researchers oppose extensive computer use for fear it may endanger the very nature of fieldwork. They contend that computer analysis distances researchers from their data, turns the subtlety of field research into number-crunching, and impoverishes its sense-making potential through the standardization of methods [Kelle 1995; Kelle 1997; Barry 1998]. They are ready to sacrifice convenience to the benefits of creativity and relevance.

The more optimistic researchers, on the other hand, insist on the promise of CAQDAS to help strengthen the weaker aspects of qualitative work. They see the computer as an indispensable tool for economizing on work (fieldwork is usually a time-consuming process) and for increasing data reliability (researchers are often criticized for not fully demonstrating the consistency of their procedures). They contend that CAQDAS speeds up the coding process, makes the search for relationships more manageable, provides a dependable structure for write-up, and permits dealing with large amounts of qualitative data, thus enhancing conceptual thinking instead of stifling it. In addition, procedures are easier to document, reproduce and reveal, making data collection and analysis more transparent and therefore more reliable [Kelle 1995; Kelle 1997; Barry 1998].

Fielding and Lee [1998] caution against an over-pessimistic view of CAQDAS: "The fear of facile analyses, analyses steered in a particular direction by program conventions and features, or the loss of craft skills, does not seem realistic on the basis of experience with programs at their present level of sophistication." Weitzman and Miles [1995], who moderate the over-optimistic view, stress that CAQDAS is only a tool, and as such requires that researchers be at least fully aware of the manner in which software interacts with their analytical work. The issue of awareness during use is important, with the risk of a naive, thoughtless use of a technology arising. It is important to understand a program's properties and presuppositions, and how these can support or constrain your thinking.

The debate surrounding CAQDAS cannot be resolved on a general level, since a great methodological heterogeneity in the qualitative field is confronted with a great variety of different CAQDAS, each tailored to different needs. The question of how the computer interferes with the nature of qualitative research thus boils down to the level of a specific research project and how the logic incorporated in a certain software package fits the methodology proposed by a certain project [Tesch 1991]. This paper will therefore focus on the practical experiences of two specific research projects to discover how CAQDAS contributed to their overall quality. Before we can do so, however, we will briefly note what distinguishes a qualitatively high-standing piece of research on one end and oppose it to critical points of data analysis which are supported by CAQDAS on the other end.

With respect to methodology, we are referring to Patton's [1990] view in which he addresses the credibility of qualitative research projects. For him, the qualitative researcher must be methodical in reporting sufficient details of data collection; it follows that the analysis processes can then permit others to judge the quality of the resulting product. He mentions that three important issues must be addressed:

- What techniques and methods were used to ensure the integrity, validity, and accuracy of the findings?
- What does the researcher bring to the study in terms of qualifications, experience, and perspective?
- What paradigm orientation and assumptions undergird the study?

These three issues are important, but in this paper, we are more concerned with the first question, and more specifically, by how a CAQDAS tool could enhance the overall quality, or in other words, validity and reliability, of an analysis. The latter are two key criteria traditionally used when verifying the findings of qualitative research. However, we do not want to delve into the already confusing philosophical discussions on standards for judging qualitative research at this point [e.g. Eisenhart and Howe 1992; Altheide and Johnson 1994]. According to Miles and Huberman [1994] validity basically has to do with "truth"; it can also be circumscribed by other terms such as authenticity, plausibility and adequacy, expressing that good qualitative research gives an authentic and adequate account of the field under study and makes sense. Reliability, on the other hand, is more concerned with consistency and stability in the study process over time and across researchers and methods.

Validity and reliability issues are a researcher's concern throughout the conduct of a study and affect data management as well as data analysis. For Huberman and Miles [1994], verified qualitative research, and thus the qualitative case study [Stake 1994; Yin 1994; Stake 1995], requires a careful, thought-out collection and retention of all study materials (data management) and a detailed tracking of data reduction, analysis, displays and conclusion drawing (data analysis).

Data management comprises any activity required for systematic and coherent data collection, storage and retrieval. These operations include accessing data, documenting single steps of the analyses that have been processed and, after the study has been completed, storing the data. One should not underestimate the importance of data management activities in the overall quality of a study. Oftentimes researchers find themselves in a data management limbo if they do not formulate adequate strategies and measures to collect, store and retrieve data. The subsequent analytical steps are only as good as their data management allows for. Many mechanical tasks are involved in interpretive analysis. A further source of preoccupation is keeping track of the research process as the data analysis proceeds. Since data analysis and theory-construction are closely linked and since many theoretical concepts are created in this ongoing process, it is necessary to devise methods of organizing ideas, arguments and theoretical concepts such that their creation can be reconstructed. New computerized methods should support the solution of these problems since they offer various possibilities of efficiently storing and retrieving data and keeping records of the research process.

Data analysis contains the following sub-processes: data reduction, data display and conclusion drawing/verifying. Data analysis basically has to do with breaking up data material and reassembling and linking the parts to gain a new understanding of the phenomenon under study. The basic tasks associated with data analysis are coding, category building, category linking within conceptual networks and category verification. In an inductive research project, the research process is not sequential but rather proceeds in iterative circles, switching back and forth from data collection to data analysis. This procedure requires great flexibility with respect to, for example, coding schemes or conceptual networks that are constantly being revised during the research process. Other than in quantitative research, the emerging results are not presented numerically, but should be presented in adequate data displays, such as, for example, conceptual networks or matrices. Consequently, with respect to analytical procedures, CAQDAS should help in accessing data easily and quickly, exploring them more fully and should increase the confidence that interpretations were made on solid grounds and not on a single, perhaps atypical, case.

Because of conflicting views on how qualitative research should be verified, we took a more practical stance and said that validity and reliability are issues that arise throughout the research process

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[Cresswell 1998]. We have therefore focused on establishing links between validation issues and computers, and possibly contribute to the resolution of these issues. We contend that if we want to answer this question, we should determine how the activities performed in data management and analysis can be improved by using a computer tool. Therefore, we will list the basic functions we can expect from CAQDAS tools in general [Richards and Richards 1994] and of ATLAS/ti [Muhr 1997], the computer software chosen for the two research projects treated in this paper, in particular. If we compare these functions with our observations regarding validity and reliability, we can see that they correspond to the critical points of conducting a good qualitative case study:

Functions related to data management:

- All data are properly stored (e.g. accepts large databases and multiple sources of evidence, data base revision possible)
- All data can be easily retrieved
- Ease of connecting the codes with the context or the original text (or data)
- Ease of connecting the families, supercodes or networks with the original data

Functions related to data analysis:

- Ease and flexibility in coding (code different ways, cycling back and forth, revision of coding schemes)
- Multiple possibilities in memoing and making comments
- Ease in creating families of codes or categories
- Ease in networking between codes and categories
- Ability to illustrate the emerging patterns graphically and keep track of them
- Ease in linking concepts and testing emerging propositions
- Ease in constructing creative reports

Without doubt the tool is useful in data management. However, one should also be aware of the pitfalls in using a computer tool for analytical work. The literature on CAQDAS intensely discusses the pros and cons of data analysis, briefly described above. Implicitly linked with these discussions is the desire to resolve the validity and reliability issues of qualitative research when using a computer tool. The quest for validity and reliability, according to some researchers, is possibly threatening the very nature of qualitative research, that is, its exploratory richness. Such a threat may be one of the most important dangers of using CAQDAS. In the following sections, we will therefore report on our own experiences with this tool to determine its use actually helped address the critical points of our own qualitative case studies (described below); to what extent we perceived the exploratory richness of our studies could be preserved; and, lastly, how the data analysis procedures, and thus validation procedures, were facilitated. Of course, this report will have a personal slant. We believe this is worth preserving since our views mirror discussions relating to the pros and cons of using CAQDAS based on our practical experiences.

THE EXPERIENCE FROM TWO RESEARCH PROJECTS

In this section, we will discuss the experience of two case studies conducted in different contexts and implicating two researchers from different countries. Both are in the management field. Even though the projects differ considerably, both researchers used the same software for data analysis. We decided to report on two studies because, in our view, it was interesting to see how the two researchers, although departing from different problems and positions, were applying the same tool for their data analysis. Critical voices on using CAQDAS contend that the use of such tools affects the nature of qualitative research in a way that it looses its exploratory richness. They say that the tool forges qualitative research into unitary conceptions and designs. We would say that this was not true for our own projects. Before we can outline this argument in more depth, however, let us first introduce the two case studies and then discuss both experiences.

PROJECT A:
CONCEPTUALIZING ORGANIZATIONAL LEGITIMACY IN A PROFESSIONAL CONTEXT IN QUEBEC

This research project focuses on an exploration of the concept of organizational legitimacy and its significance for a professional organization; we are referring here to an organization (association or corporation) representing and defending the interests of its professional members. Two professions in the accounting domain were chosen for the study: one has a limited status (a reserved title), and the other benefits from an exclusive field of practice (an exclusive title is associated with it). Legitimacy is an intangible asset for any organization that if fails to be protected or developed could result in reducing the importance of or even dismantling an organization. Our purpose was to discover first, what legitimacy means to the actors in a particular setting and second, how legitimacy is managed, should it be directly or indirectly.

Professional corporations are strictly regulated, and manage their relationships with three major stakeholders at play: professional members, governments, and the public. A professional corporation cannot act without bounds. It must first obtain recognition from the state. Once recognized, the corporation follows strict regulations, with protection of the public interest as their primary mandate. This is the first dimension (the legal one) in our concept of legitimacy. Two other dimensions need to be considered: institutionalized practices and stakeholders' perceptions, both of which influence legitimacy and its management. There are multiple contradictory and confronting forces a profession cannot ignore.

This research is mainly inductive, even if conducted with a preliminary model conceptualized from the literature and with a brief incursion into fieldwork. The latter permitted orienting the questions to be asked during the first phase of unstructured interviews. The fieldwork also permitted fixing some kind of boundary around this abstract concept that is open to interpretation on several levels. Another challenge arose on site: I met executive managers at two locations and felt their hesitation with the word legitimacy. I needed to explain the concept and my role, reassure them, and adapt my vocabulary. Consequently, I had to formulate my questions using more concrete language and less threatening words than initially planned so as to reassure my subjects.

Methodological choices. Purposeful sampling was used for the choice of interviewees as well as for the units of analysis retained as central for the study. Data collection involved both historical as well as contemporary data. Unstructured interviews were privileged, complemented by secondary source data. Data interviews were transcribed on a computer file in a prescribed format. Selected documents were scanned and saved for subsequent analysis.

PROJECT B:
UNDERSTANDING MULTIPLE STAKEHOLDER RELATIONS IN SHELL'S CAMISEA PROJECT IN PERU

This second project explores the multistakeholder relationships of a given organization. Multinational firms do recognize the importance of multiple stakeholder management for their operations. However, existing research still represents corporate relations in terms of dyadic relationships. The purpose of this study is to better understand multiple stakeholder relationships and how they can be built and maintained.

The case examined is the Shell Camisea project in Peru, in which the company was exploring for gas in an environmentally and socially sensitive area. A broad range of NGO groups participated on several levels in the project's design and implementation phase. The study focuses on an in-depth investigation of a set of multiple relationships selected with theoretical considerations. It inquires into the resolution of distinct issues and tries to understand if, why and how different groups participated in the discourse surrounding these issues, how they interactively framed the problems at hand and how the various groups could be enrolled in the problem-solving process.

The study is conducted as an inductive qualitative case study. It focuses on a single case in-depth and is an instrumental case study whose aim is to provide insight into multiple stakeholder relations. The case thereby plays a supportive role in advancing a theoretical framework for multi-stakeholder relations. The study's methodology makes reference to the grounded-theory approach. Its intent is to generate theory that relates to a particular situation or, in other words, that is grounded in empirical data. It will conclude with a narrative statement or propositions relating to the phenomenon under study.

The methodological aspects can be sketched as follows: The case has been chosen on the grounds of theoretical considerations. Data collection is mainly based on interview data gathered from unstructured and semi-structured interviews. To reduce the likelihood of misinterpretation, data collection was also based on other sources of evidence, including historical as well as contemporary information. Secondary data comprise archival data, internal corporate documents, media releases, and Internet sources. Data analysis is performed according to the common procedures of inductive research and with the support of a computer tool.

CHOOSING AN ADEQUATE TOOL: EVIDENCE DRAWN FROM PERSONAL EXPERIENCE

Choosing the adequate tool is not easy considering the wide variety of programs available. The existing computer programs transform data in different ways and thus have different effects on the analysis process. Before choosing a program, a researcher must therefore carefully determine the requirements of the research project (purpose and epistemological assumptions), and compare these with the architecture of available software. Many programs, although open to various approaches, have built-in assumptions that should be clarified before choosing a program. In the next two paragraphs, we will provide the reader with personal testimonies of the two researchers who are conducting the research projects described above. The evidence drawn from their personal experience may appear redundant at times, but we think it can enlighten the process of choosing a computer tool. The testimonies will be described in the first person singular to demonstrate that they were independently made. In the following data management and analysis sections, our experiences will be summarized, because parts of them were made interactively through discussing problems while proceeding with the analysis.

PROJECT A

This project was underway before deciding which software would be used for my analysis. Data were already collected (from interviews and from secondary source documents). Since I was progressing in my research and the amount of data gathered were increasing, I began discussing my project with experienced researchers. I explained my work, its aim and methodological elements, and asked them for advice on selecting an appropriate tool. The choice was quickly reduced to two software: NUD.IST and ATLAS/ti. I should mention, however, that often researchers learn to use only one program and so their perspective is limited. Furthermore, if the researcher you are discussing with had worked on projects dissimilar from yours, how can you be sure their comments are pertinent to your project? Frequently researchers have heard about different tools from colleagues and are familiar with their experiences, but few have practical experience with several programs. Fortunately, I met one person who knew several programs; this helped me in securing my choice.

Another important element not to be overlooked is related to the nature of qualitative inquiry. Since qualitative research differs substantially from one investigation to another, and since researchers bring themselves (their background, feelings, perceptions) into their work, their manner of carrying out research analysis can differ significantly. Considering this, any good program created for qualitative research should in itself be very flexible; this in turn adds to the difficulty in making a choice.

But then again, discussion with colleagues is by far the fastest, and perhaps the most reassuring, way to choose your software. To be considered pertinent and useful, the chosen program must reflect the project's particularities and must also suit the researcher's personality and specific needs. The next step is to work with the program, to understand how it works and what it can do. I had the chance to follow two half-day training sessions with two different teachers. This helped considerably, but here again, different teachers offer varying views (for example on how data should be organized). Two sessions are not a lot, but enough to gain some confidence, reassurance and a more global understanding of the capabilities of the software. ATLAS/ti has the reputation of being user-friendly. To a certain extent, this is true; but it takes time to become acquainted with it and to understand what it can do for your specific project.

While becoming familiar with the software, I found articles discussing CAQDAS issues. Now that I had gained some experience with the tool, I could more easily follow the arguments presented. Those readings confirmed my choice, but again nothing replaces practical experience in choosing the appropriate software. Literature can help, as can the advice of experienced researchers, but the final choice is in the researcher's hands, and is greatly dependent on the project and the user's ability to exploit the tool. "The greatest limit of ATLAS/ti", said one researcher, "is with the researcher himself. It takes a lot of creativity and a good knowledge of the software to use it in a maximal way."

I recognize I still have a lot to learn. And one problem is that there is no recipe, no one best or unique method as in a statistical analysis in which you put your data in a column, and the results appear as the calculations are carried out. A qualitative data analysis software must reflect the flexibility and creativity required in qualitative research, and so diverse methods of data analysis are necessary.

PROJECT B

My first acquaintance with CAQDAS was after I had started to conduct the study. While reading the relevant literature on qualitative research, I encountered a great deal of advice on how good qualitative research should be conducted. It was obvious that although there are as many concepts of what good qualitative research is as there are authors, I had to ensure that my work distinguishes itself from common sense or journalistic accounts. I needed support in data management and analysis and since there were more and more courses offered on computerized qualitative data analysis, I started to become curious about the possibilities such a tool could offer.

It was difficult to find people using such tools because not many researchers are concerned with qualitative research in my environment. This left me to do my first evaluations from the literature and from Internet sources such as CAQDAS discussion lists and homepages of the various software suppliers. Although I thought that the literature provided me with many interesting insights, I was hesitant about choosing a program. On the grounds of my literature review, I concluded that theory-building programs such as ATLAS/ti and NUD.IST would probably (and theoretically) come closest to the requirements of my research project. The literature provided a good overview of the different tools, but still I had difficulty deciding which program would best fit my research. Since ATLAS/ti was communicated to be user-friendly and very flexible in coding, networking and visualizing data, I favored this program even though I could not definitely say it would meet my expectations. NUD.IST seemed to be less flexible because of its hierarchical structuring in data analysis and thus appeared it could hamper my creativity. Considering that I was exploring an under-researched phenomenon that requires much creativity in data analysis, and considering that I am visually oriented and favor the possibilities offered by ATLAS/ti, I decided to give the visual aspect priority over the perhaps more structured procedures of NUD.IST. Furthermore, NUD.IST seemed to be a rather complex program that would take time and effort to master and I was questioning if this would pay off. However, I was also told to be cautious in using ATLAS/ti since its flexibility allows for many ways of treating data - even absurd ones - and that a researcher might get lost in the broad varieties of those possibilities.

Although ATLAS/ti was said to be user-friendly, I could not do more than open the program on my first experience. The presenting screen was somewhat overwhelming, and studying the manual did not help much. I therefore completed two ATLAS/ti training sessions and in hindsight, I can say that this was absolutely necessary and helped confirm my choice. The courses covered everything from encountering technical difficulties, to conducting the various research steps, to using different media in analysis. The course also covered methodical issues such as defining strategies for storing data, using various forms of coding and so on. Although these issues would be raised without the computer, they had to be reflected explicitly and were dependent upon the program used, which - I would say -generally contributed to the project's quality. Since all the activities were based on practical examples, barriers to both using a computer and carrying out the various analytical activities could be overcome.

My conclusion in choosing the ATLAS/ti program as the adequate tool for my research presents itself as follows: My choice was based on a careful assessment of possible CAQDAS tools. But since a program needed to fit my own research project, it was only after I had spent much time becoming acquainted with ATLAS/ti that I became convinced of the program's possibilities. I would have appreciated more contact with people using the program to have discussed with them the various steps undertaken with the program. The ATLAS/ti discussion list on the Internet is very helpful, but nothing can surpass personal contact to help limit the risks of using the program inadequately. I would agree with the concern expressed in the experiences of project A, namely that a computerized qualitative research is only as good as the researcher behind it.

QUALITATIVE DATA MANAGEMENT AND ANALYSIS WITH ATLAS/TI

Below we describe our experiences with managing and analyzing our data. Of course, this will not be an exhaustive report on every possible procedure that ATLAS/ti can perform. Instead, we will try to demonstrate with examples if and how the various procedures can be better performed with, rather than without, a CAQDAS tool, and how we believe the overall quality of our work was enhanced. Since both projects are works in progress, the primary steps of data management and analysis will be prevalent in this description.

Managing Data

Managing data comprises the storage or entering of data and their retrieval. A few technical aspects must be considered before data sources, such as text files, are ready to be stored. Data should be entered into a word processor or text editor that can save files in ASCII format. Text lines should be limited to about 50 characters to fit on the screen. This will later permit simultaneously viewing the code and the text segment when working. Apart from such technical aspects, one should carefully elaborate a strategy for organizing the database because its structure has implications on the search and retrieve functions that can be performed in later research phases. Within ATLAS/ti, the basic pool where all data are gathered is called a hermeneutic unit (HU), tantamount to all objects belonging to the research project. Primary documents (PDs) of different sources, in our example chiefly text, are all assigned to this HU. If these sources are not available in text format, they can be scanned and used as image files.

In Project A, upon the advice of a researcher, there were as many HUs created as there were interviews and other sources of information. We discovered later, on the advice of a second researcher, that it wasn't a very practical advice. If you do so, you will have to merge HUs, do a follow-up of the codes, memos, etc.. You could encounter problems with the search and retrieve functions of the program or simply in exploiting different facets of analysis. In any case, this will require a lot of time and could be a source of potential errors.

Creating consistency of recording within documents was another important procedure to complete at this stage. If, for example, you want to retrieve all text passages from a transcribed interview related to a certain person, the person's name should be noted in precisely the same way throughout the interview, otherwise the query tool will not deliver a reliable result. In one case, only after using the query tool did it become clear that the interviewee's names were noted inconsistently. The file was consequently corrected and reassigned to the HU.

Since both projects rely on multiple sources of information and units must be sorted on the grounds of various criteria, the primary documents had to be labeled appropriately. In project B, for example, firm personnel as well as a variety of constituents are interviewed. In data analysis stages, it could be useful if stakeholder documents were differentiated from corporate documents. Document families were therefore created distinguishing between the two. The families could subsequently be used as filters within search operations.

ATLAS/ti does not support Internet sources. Therefore, one can either print out or scan Internet documents or save them as text files (this, however, creates a document unpleasant to read). One should realize that as soon as image sources – or worse audio sources - are used, problems arise due to the enormous amount of hard drive space these formats demand. Without a computer of adequate capacity, using scanned documents or audio sources is almost impossible. As a result, many of these types of documents were stored on a shelf instead of on the computer with the other texts.

The data management procedures were found to be sufficient for both projects. At first sight, we were uncertain if the possibilities for database structuring were sufficient. For example, it was not possible to assign tags to the various sources other than by building families. However, we discovered that for our data analysis approach the subsequent data analysis functions were beneficial and the data management was sufficient for our projects if we were cautious in building adequate families and creating data consistency. At least, data management was more easily carried out than if it were done by hand. Also, families can readily be modified, a lengthy procedure without computer aid. However, the program was not very satisfactory in dealing with numerous Internet sources because ATLAS/ti does not support the relevant formats. One could also imagine that for a larger-scaled project more sophisticated data management operations would be useful.

Analyzing Data

In the following we describe all elements relating to data analysis.

Coding

ATLAS/ti allows several methods of coding and memoing. Flexibility is the key word here. Coding can be carried out either manually or automatically, and several options exist for assigning codes. You can become acquainted with these features quite quickly. Coding is an important step since it is the basis for higher-level analysis.

The codes must be applied systematically and consistently: the coding of raw data must be inclusive and exhaustive. Unknown aspects of the phenomenon under study are discovered through careful and intensive inspection of the raw data, that is, the original text. The first coding phase can be restricted to sign posting or first-order coding. Codes, which are necessary elements in subsequent analysis, are stored together with the address of a specific passage of text.

Codes can also form the basis for constructing theoretical categories, either by the subsumtion of several codes under a more general code, or by the subdivision of one code into several more refined subcategories (second-order coding). The process of coding data should be regarded as an important intermediary step in translating social actors' frames of meanings into the frame of theoretical discourse. The process of developing a coding frame that meets the dual criteria of being grounded in both substantive theoretical schemes and in the data consists of a number of feedback loops between theory, coding frames and data.

In both projects, we experienced some difficulties at this stage. In one instance, coding had to be redone because it did not make sense: the codes were given names that were pieces of sentences and were too long. Short, concise names that can be easily displayed on the screen should be assigned. In both our projects, coding was redone and modified several times, which seems to be a typical experience in an inductive approach. Consequently, we had to reexamine all documents to confirm that the coding scheme was modified in all sources. We resolved this problem by starting with a thorough coding of a few documents we thought would be rich enough for developing the coding scheme as thoroughly as possible. After these second-order coding steps, text passages assigned to a certain code could easily be retrieved and printed. Second-order coding commences with rereading these passages and the stimulating analytical thinking this produces. Also, since these codes are still linked to the original data context, the data context is never lost: this provides one of the major advantages of ATLAS/ti. As mentioned above, the time we saved modifying our coding with ATLAS/t instead of by hand was able to be spent considering our data. Although we had to become familiar with working on a screen, working on a computer was very advantageous because it allowed for multiple and thorough revision. Coding and retrieving was carried out with such ease and efficiency (without loosing data context) that we contend in this case, exploratory richness is preserved and better quality research is performed.

Memoing and Commenting

ATLAS/ti permits extensive facility for adding memos and comments to various aspects of your HU. Comments can be added to any quotation, code, code family, PD, network, code-to-code link, quotation-to-quotation link, or to the HU itself. Memos, on the other hand, differ from comments: they can be attached to multiple objects at once, including quotations, codes or PDs or can be free-standing. Memos allow the researcher to note ideas at each step of the data management process, as if taking notes manually, noting reflections, elaborating models or theories, or producing a report. When writing memos theory is developed. These notes hold the researcher's insights, which on one hand helps keep track of the analytical steps and on the other helps in writing reports. All the memos written can be stored and retrieved easily with the use of ATLAS/ti. We both perceived that if we had to do this by hand it would require great effort to organize these notes so they could be included in further analysis.

Making Use of Families and Filters Functions

A variety of options exist for filtering PDs, quotations, codes and memos. A filter defines a set of objects that are active at a given time. When a filter is set, only the included objects show in the list panes, and almost every operation (searching, printing) affects only those objects. You can also create families of PDs, codes or memos: groupings that can be used as filters. Families can function as a sort of limited broad coding scheme. The code acts as a family for citations.

In Project A, for example, at least two families were built, one for each observation site and a third for the historical and longitudinal section of the study. In Project B, families were used to distinguish between the corporate and stakeholder division. We perceived the families and filters features –used either as a data management support or analytical support – as very useful. Since they can be modified quickly, families and filters support data manipulation and testing in a manner one could not by hand.

Theory Building

Although all previous steps such as coding, memoing, building families and using filters were part of building theory, in addition ATLAS/ti offers various tools that can support higher-order analysis. Hypertext links for example, can serve to create a chronology of events. Another feature, the network mode, creates links between codes, memos etc. and can be defined according to several criterion and displayed in a visual mode.

ATLAS/ti provides a graphical network editor that helps explore and visualize the relationships between the different objects in a HU. Networking is quite easy and flexible; any object can be imported into the network view, any object can be connected or disconnected, new codes and memos can be created there, or codes can be merged. The network editor is a good analytical tool for graphical representations of analyses. Graphs can be manipulated directly.

We both have only limited experience with the network view so far. However, our initial experiences confirm that the network strongly supports our creativity. Establishing the link to the original data context could be done easily even from networks.

Making Queries

Another feature we used and but have not exploited at a sophisticated level is the query tool, also an excellent theory building and testing ATLAS/ti feature. It allows for complex search and retrieve functions. For example, it can help define different relations for linking objects. In both our projects, activities such as pattern matching or detecting co-occurrences are very important in refining analytical results. However, this feature was also useful in the simple search and retrieve activities we needed at our stage of analysis. Using search and retrieve functions will become increasingly important as our analysis proceeds. The query tool is powerful in fostering creativity in relation to the network functions.

Creating Outputs

Different types of output are available with the software. A short discussion of several of these follows: Lists of primary documents can be created to display a hierarchy of quotations, codes, and memos, or the text of, for example, all quotations. From the quotation list, quotations containing source info, codes, comments, and memos can be selected. From the memo list, a list of memos can be printed containing the text of the current memo. A code can be selected and then all text passages that are related to this code can printed, or a code can be chosen for printing in relation with its subordinate codes. Tables can be created with a count of code frequencies. Graphical representations of code trees, networks, etc. can be printed out or exported to other programs. Again, this is a feature we have not yet fully exploited. However, it is important to know that the ATLAS/ti program does not only offer many ways of supporting data analysis, but also offers features to create the relevant output and export it to other programs. Results can even be exported to SPSS for further statistical analysis.

We did not explore the more advanced features of the software since we have just begun to use the above features and both research projects are still in progress. We both had the opportunity to see the capabilities of the software demonstrated and they look very promising.

GENERAL OBSERVATIONS

We will complete our exposé by summarizing our experiences and referring to more general observations taken from the literature where our own experience was not sufficient. We stated that the purpose of our paper was firstly to determine how a CAQDAS tool could be used to enhance critical points in a qualitative case study and secondly to determine if exploratory richness could be preserved. Although we were not able to fully exploit all possibilities of the computer tool – it has so many features that one could hardly use them all – we can say the tool was very useful for both data management and analysis.

The very first step before using a CAQDAS tool is the choice of an adequate software. Several times, we have mentioned how important it was that a tool fits a research design in order to support data analysis in an efficient manner. Based on our experiences, we came to the conclusion that spending effort and time in evaluating the right tool pays off. Literature and diverse advice from researchers already acquainted to using such a tool were very helpful, as well as the formations we took. We also mentioned that one must live with the tool a while before feeling secure about its choice. This cannot be avoided. Let us now turn to our observations on the performance of the program.

In data management, we believe some features could be enhanced, however, in data analysis the tool was more than adequate for the steps performed so far. Our benchmark for judging the contribution of ATLAS/ti was the alternative of carrying out all steps by hand, in which a cut-and-paste technique is used. By hand, paperwork can easily become unmanageable, coding eventually becomes problematic and returning to the original context becomes a conundrum. Carrying out analysis by hand implies the pitfall of following only one path. With the computer several paths could be tested and evaluated much more easily. We realized that proceeding the analysis, the above-described steps increasingly intermingled; this made it difficult to determine the contributions of the program's discrete features because they develop their full potential in concert.

Since we focused on research validating procedures, we conclude that this is precisely how the computer can best contribute to a project. From our experience with the software, we can say that the procedures of data management and especially analysis were enhanced so that the data could be explored in more depth and in less time than if done by hand. As pertains to our second point, namely the question of data exploratory richness being preserved, we would say, contrary to the critical voices CAQDAS encounter, that using ATLAS/ti did not constrain our activities. In fact, we could not have explored the data as thoroughly or repeatedly without the computer and the richness contained in the data was better exploited and gave a better-quality result. Of course, validity and reliability also depend on the researcher: on his or her experience and familiarity with the site, the theories and methodology used. But we would say that the analysis procedures are a major component in enhancing validity and reliability.

Since we presented work in progress and are still analyzing our data, higher-order analysis has been somewhat neglected in our report. We present Kelle's [1995] observations on this point: Researchers can draw the greatest benefits from computer-aided methods in the coding and retrieval of textual data in the domains of theory building and of qualitative hypothesis examination and refinement. If qualitative data were not organized and structured, the search for evidence or counter-evidence would be an almost insurmountable task involving hours of reading and manual searching. As concerns ATLAS/ti, Kelle [1995, p. 199-200] adds the following: "This very flexible tool for constructing any kind of network (for example containing cycles, hierarchical and non-hierarchical relations) is particularly suited for the approaches to theory building. The design of the user interface is such that most of the analysis is conducted on-screen, rather than on paper as with many other programs". We have experienced these advantages in the analysis conducted so far, and it easy to deduce these will benefit later research phases too.

We questioned if we will still spend a·lot of time using ATLAS/ti on our projects. On one hand, this hesitation may be partly due to our inexperience, but on the other, it may be due to our view that the researcher dwells on data analysis for a longer time when using a software tool such as ATLAS/ti since it allows so many avenues for analyzing and exploring data.

Finally, if we compare ATLAS/ti to a program used for statistical analyses, for example SPSS, in which data is entered according to prescribed rules and analyses are run automatically, we are reminded of how challenging qualitative research procedures can be. These procedures are not standardized: which reminds us that when using a program such as ATLAS/ti, and perhaps this could be applied to all CAQDAS tools, we are left with a kind of arbitrariness, vagueness and uncertainty. CAQDAS in general and ATLAS/ti in particular, are only as good as the researchers and their strategies and creativity in analyzing data. We asserted from the outset that researchers could not count on the computer to do their job, and this is true. There is some risk that the researcher preoccupied with the technical aspects could lose overview of what is necessary for the analysis. The difficulty for a beginner is that he or she has to learn how to conduct a good data interpretation while learning the technicalities of a computer tool.

CONCLUSION

Using a CAQDAS tool such as ATLAS/ti is in our view beneficial and contributes without doubt to the quality of analysis. Consequently, its use will add more credibility and reliability to the emerging findings and final conclusions of a specific case study. In this paper, we tried to document how a CAQDAS tool could respond to the critical points of conducting a case study according to the canons of good qualitative research and how it could enrich the analysis process and end-results. It would have been beyond the scope of this paper to develop our arguments in greater detail. Altogether, we would say, we found the computer tool adequately supported the critical points of producing a good qualitative case study.

Some minor pitfalls must be overcome with using a computer tool, technical nuisances such as difficulty in transferring one's work from one computer environment to another, the time required for getting familiar with the software, or, a point not to be underestimated, unavailability of colleagues who could facilitate the progress of one's research. In spite of these difficulties, we both agree that for each of the case studies in progress described in this paper, pay-offs in terms of enriched data analysis and comprehensive development of coherent theoretical ideas concerning software use are greater than the inconveniences one could encounter even as a novice user. Is exploratory richness preserved when using a CAQDAS tool? Yes, without a doubt. We would even say that with ATLAS/ti, data richness is not only preserved but can be better explored, and the overall quality of a research project will be consequently enhanced.

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NEGLECTED VOICES: WHAT CASE METHOD RESEARCH CAN TELL US ABOUT THE STAKEHOLDERS IN EDUCATION

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Abstract

This paper presents background on the voices of stakeholders in education, and a meta-analysis of seventy teacher-research studies conducted over seven years. Specifically, it addresses two voices in education that traditionally have been neglected – classroom teachers and their students. Five patterns of student responses are presented, and implications are discussed.

KEYWORDS: Teacher-research, Stakeholders, Student Voices

INTRODUCTION

As teacher-researchers of our own practices, and as mentors to teacher-researchers in our graduate school classes, we have become uncomfortably aware of the lack of democracy in classrooms of the United States. Ironically, part of America's original vision for public education was to school a nation for democracy [Dewey, 1916, 1936; Glickman, 1993; Gibboney, 1994; Allen, 1995]. While we claim to teach students to live in a democratic environment, we often do not teach them in a democratic way [Shannon, 1993; Gibboney, 1994]. We rarely seek students' input in decisions affecting policy, curriculum, and instruction, yet these students are the foremost stakeholders in the educational forum. Even when students' views are visible, it is from "...the adult educators' interests..." [Allen, p.1].

While we hear few students' voices when we read research in education, and see very little that places their perspectives in a central position, the idea of foregrounding them is not new. Dewey advised that students should have "...freedom which is power: power to frame purposes, to judge wisely, to evaluate desires by the consequences which will result from acting upon them; power to select and order means to carry chosen ends into operation" [1936, p.64]. We have found is a paucity of traditional research and teacher-research that asks students and teachers for their input in decision-making about such assumed school practices as grouping, teaching style, curriculum, classroom seating, parent involvement, uniforms and dress codes, safety issues, and others [Oldfather, 1993; Hoffman and Topping, 1998]. While some researchers ask students and teachers their opinions through surveys or questionnaires, they do so as outsiders looking in or, at best, as participant-observers.

Researchers who have honored student voices among the literature have been reported in Allen [1995] and Cochran-Smith and Lytle [1993]. Allen served as a facilitator at five PSI League Schools (Program for School Improvement's League of Professional Schools). She spoke with teachers and students yearly about decision-making processes at the classroom and school levels. As a part of this program, the facilitators interviewed the students to record their input. Students reported various degrees of powerlessness to empowerment in the practices relating to them in their schools. Cochran-Smith and Lytle's work with teacher-researchers in urban school settings has looked at empowerment of students through reading and writing. In some of these studies, teachers report on sharing control of decision-making about classroom practices with their students.

WHO IS ON THE INSIDE OF DECISION-MAKING IN SCHOOLS – AND WHO SHOULD BE

We recognize that most school decisions historically have been made from the outside-in rather than from the inside-out. Many forces yield influence upon the classroom environment. Individual school boards hold policy and financial power over curriculum and instruction. Textbook companies influence the same through additions and deletions of subjects and topics to their print materials, often swayed by influential adoption states and special interest groups. Administrators feel the pressure of their local environment to choose what they see as "best" for their students. Parents place their own added weight into the calculus of what should be. And, not in the least, all feel the current push for standards from the regulatory influences of state boards of education and the professional organizations. All of these decisions are made within the unique political and economic climate of the time, and represent the agendas of those in positions of power.

Noticeably lacking in the power structure is a provision for the voices from the inside to be heard. We believe that teachers and children, those who live "in the trenches" of daily classroom practice, should be involved in decisions regarding what works best for teaching and learning. As such, we have regularly sought teacher and student voices through our work with graduate students in the courses we teach in Literacy Education [Hoffman and Topping, 1999; Topping and Hoffman, 2000].

LISTENING TO THE NEGLECTED VOICES

THE TEACHERS

Conscious of the dichotomy that exists between the democratic mission of schooling and the ways in which undemocratic teaching disempowers, we have had to reconsider our own teaching seriously. Within the hierarchical infrastructure that exists in education, our jobs as professors often appear to militate against democratic pedagogy. We (not students) are charged with creating the syllabus and assignments, giving feedback, and assigning the grades. Within this structure, what is a would-be democratic teacher to do? We have included teacher-research as the major assignment in our graduate courses to invite the traditionally disempowered teacher voice into the conversations in our classes. As we have described elsewhere [Hoffman and Topping, 1999; Topping and Hoffman, 2000], this always creates anxiety among teachers who are accustomed to coming to class as receivers of information rather than creators. Nevertheless, we persevere, believing that the equal sharing of theory and practice is central to our learning as well as theirs.

We conducted a focus group interview with teachers who had participated as teacher-researchers in 1995 and found their thoughts on the process informative:

- *On being asked to conduct teacher-research:*
  "At first I thought 'yeah…right…she really wants to know what I think'…. You know, I mean, you're the professor with all the degrees and stuff. Like I could tell you anything you didn't know. But, I realized as my research was going along that you really did want to know what I was finding, and that you were kind of adding it all up with everything else you'd ever read or learned, and that what I was finding was making a difference in what you know." [Carol, pseudonym]
- *On empowerment:*
  "I was amazed at how good this made me feel about being a professional teacher. For the first time, I felt like I could document some of the things I had just felt before, and that someone would listen and regard what I do with some respect. My principal had me present my study at a faculty meeting, and he really listened. I mean, the next day and the day after, he was still talking to me about it, and he still brings it up!" [Lorna, pseudonym]

- *On democracy:*
  "When you talked about democratic practices in teaching, I have to tell you that I thought you were just saying what you felt was politically correct. Here we were doing this "democratic assignment". I mean, it was still an assignment that you had the power to make us do, that is if we wanted to get a good grade! But, you kept saying that we should find our passion, and I really researched what I loved, and you didn't try to change it or tell me I had to do something else. And, I really learned. I don't think I ever would have thought to be a researcher in my own classroom if I hadn't been assigned to do it. So, maybe democracy needs a jump-start sometimes?" [Corina, pseudonym]
- *On listening to students:*
  "It's been really interesting to me to find that so many of us decided to ask our students what they thought about what we do in school. Maybe it's because you were so clear about listening to what we had to say. Maybe we, in turn, just realized that we could learn about teaching from our students...by listening to their voices like you were doing with ours." [Deanna, pseudonym]

THE STUDENTS

A significant "aha" in our own learning occurred in Deanna's statement, "It's been really interesting to me to find that so many of us decided to ask our students what they thought about what we do in school." Up to that point, frankly, we had not stepped back from the research process to look at patterns in what our students were choosing to study, so intently were we focused upon our roles as mentors. Indeed, many of them had chosen to ask their students for feedback about the curricular and instructional practices in their classrooms. From that point forward, we began to look more closely at the nature of our students' self-selected areas and informants in their research.

A meta-analysis of completed studies that we have mentored over a seven year period, reveals that an overwhelming majority, 44 out of 70, deal with teachers listening to their students' voices [Figure 1]. Perhaps, in the beginning, these teachers had engaged in research because it had been rather undemocratically assigned, perhaps they initially were skeptical about the sincerity of our desire to learn from them, and certainly they were unaccustomed to the role of researcher; yet, it appears that the notion of entertaining multiple voices became part of the democratic practices in their classrooms – at least for the period of their study. Our hope always, of course, is that this experience plants the seeds of democracy in their thinking, and that they will carry it forth in future endeavors.

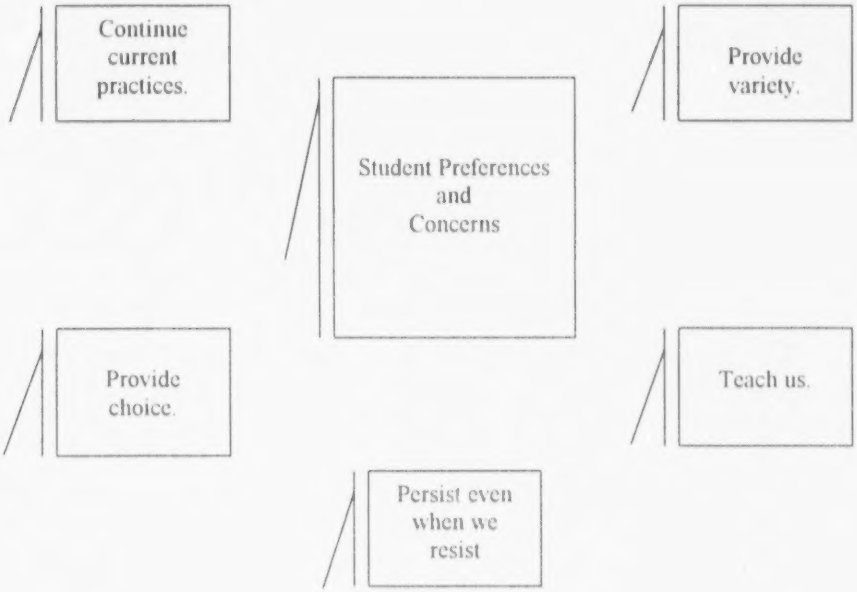
FIGURE 1
PRIMARY DATA SOURCES FOR SEVENTY TEACHER-RESEARCH STUDIES

Data Drawn Primarily From	Number of Studies
Student Perceptions and Points of View	44
Teacher Perceptions and Points of View	13
Case Studies of Student Progress	8
Parent Perceptions and Points of View	5

The forty-four studies seeking student voices spanned a range of grade levels from kindergarten through college freshmen, in classes relating to reading/language arts as well as health, math, art, technology education, and college developmental studies. Group sizes of informants ranged from three students to entire classes. Topics investigated included pedagogy and curricular issues that permeate the professional development literature in the field of literacy – grouping practices, cooperative learning, read-alouds, self-selected reading, use of primary source material (tradebooks and the newspaper) vs. textbooks (basal readers and anthologies), writing across the curriculum, and technology.

Throughout these diverse yet related studies, five patterns of responses continued to surface. Regardless of the age level of the student, the specific pedagogy or curricular issue, or the size of the informant group, student voices spoke to the same constellation of preferences and concerns. We display these in Figure 2.

FIGURE 2
CONSTELLATION OF STUDENT PREFERENCES AND CONCERNS REGARDING CURRICULUM AND PEDAGOGY


Continue current practices.
Provide variety.
Student Preferences and Concerns
Provide choice.
Teach us.
Persist even when we resist

Current Practices, Variety, and Choice

Regardless of the age of the informants, students exhibited remarkable flexibility in adapting to the pedagogy or curricular innovation under study. Simply, students found that some value accrued to their learning from all types of pedagogy and curriculum. This validation of multiple practices was a recurrent theme. While the corpus of literature on any given pedagogy (read-alouds, heterogeneous grouping, and so forth) is replete with testimony toward its superiority by those who espouse it, students found value in all things.

They spoke strongly, however, in favor of variety. "But not all the time" was a high frequency comment. This was especially interesting as it related to studies about heterogeneous grouping patterns, tradebook use, and cooperative learning, three bodies of literature in the field that present compelling evidence to support their singular adoption. Students learned with each of these, yet made cases for tempering them with the use of homogeneous grouping, basal reader, and direct instruction as well.

They brought to light the inherent danger of "overkill" as well. They noted, for example, that when every teacher uses journal writing in every subject in every grade, even a useful thing can be overdone.

Equally paramount among their concerns was the desire for choice when possible. While this appeared in nearly every study, it was most ardently expressed in those that related to response to literary or informational text. A wide range of preferences surfaced. Students asked to be given options such as writing, drawing, talking, simple listening, and silent reflection as options from which they could choose in order to enhance their experiences with texts. They observed that most often teachers require all students to respond in the same mode at the same time, a practice that fails to capture honest responses from some students all of the time.

Teach Us, and Persist When We Resist

A most interesting set of responses indicated students' desire for direct instruction. While they enjoyed cooperative group activities and open-ended responses, they spoke of liking it when the "teacher teaches". While teaching arguably is a complex process that extends far beyond standing in front of a classroom delivering a lecture, students equated teaching with that sort of direct instruction. Furthermore, they like it. A group of kindergartners, for example, responded to their teacher's holistic attempts to teach them to read by motivating interest in books, reading aloud, and engaging them in pedagogy more reflective of whole language by saying, "But *when* will you going to teach us to *read*?" Repeatedly, students expressed respect for their teachers' knowledge, and the desire to have their teachers tell them what they needed to know.

Students also admitted to needing time to work through an adjustment period with certain pedagogies in order to experience their full benefit. Studies about the use of writing–to-learn across the curriculum (e.g. journals, learning logs, dialogue journals) brought this forth in the most apparent way. Student responses revealed initial resistance, even dislike, of using writing in this mode. They reported discomfort, avoidance, and the suspicion that the writing was not helping them learn. Over time, however, as they continued to write at the teacher's behest, their responses changed. While still admitting to not liking it, they found that their understandings of content were, in fact, enhanced. They recognized that sometimes they needed to be pushed to do things, even when they did not like them and initially resisted.

IMPLICATIONS: A CAUTIONARY TALE

Sally [pseudonym] was very forthright with her students about her study on instructional grouping in her fourth grade classroom. She told them that she wanted to know their viewpoints about various patterns so that she and her faculty colleagues could take them into consideration in planning for the future. Her student Troy [pseudonym] stated it well: "Ms. Jones [pseudonym], will it really matter what we think?" Perhaps this is the biggest implication to be drawn from this paper. Will it really matter what teachers and students say? Will those of us who are accustomed to holding the power in higher education be willing to share the stage with our students and theirs? Will administrators, boards, textbook publishers, parents, and regulatory agencies listen to and care about what these neglected voices have to say?

Listening may involve hearing what we do not want to hear, challenging some of the immutable truths we thought we knew. It may cause us to rethink what we do and say. As we have listened to our students over the years, we have become less certain about "best ways" of doing anything in education. There are few absolutes. We do know, however, that everything about education is socially and culturally situated. In reality, ultimate decisions about what is "best" for any given teaching and learning situation are made by teachers behind closed classroom doors every day. They are the ones who directly affect education; the rest of us act more on the periphery. We contend that these decisions are best made by those who have been given the skills and processes of research, who view their decision-making in a responsible and informed way. When we involve the foremost stakeholders in school-based decisions, we find that we are better models of democracy in our classrooms.

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THE INTEGRATION OF TEACHING, RESEARCH AND SERVICE THROUGH CASE STUDIES

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Abstract

Through the application of the case study approach, this professor/university administrator has integrated her teaching, research, and service. Students, especially those at an urban institution, respond favorably to using the metropolitan environment as a laboratory and developing their own case studies to implement the course objectives and the conceptual framework of the course. In addition, many of these case studies of the students and professor benefit the community, governments, and organizations in the region. Therefore, the case study approach has brought visibility and recognition to the university on a local, regional, statewide and national scale.

KEYWORDS: Integration of teaching, research, and service; metropolitan environment

INTRODUCTION

As someone with an interdisciplinary background (Bachelor of Arts in Sociology, Master Arts in Geology, and Ph.D. in Geography), I have always attempted to seek connections and linkages between and among my academic objectives. In so doing, my major academic field is an interdisciplinary one – urban studies. Through over 20 years as a college faculty member, I have oriented my teaching, research and service toward using the case study approach. Such was not difficult in the eleven years I served as the founding director of a public policy outreach center. In that capacity, I found each new project was another case study. In addition, much of the service work associated with the center was case study focused including the development of strategic planning processes and agendas for multiple local governments and organizations in the Dayton, Ohio, metropolitan region. However, I found that through 20 years of such on-going work, I was able to accumulate a comparative analysis of the different sectors and environments in which I played a role of facilitator and interacted with the key officials.

Perhaps the group that benefited the most from this applied research and outreach was the students in my courses. I was able to synthesize my professional service/community work and use it to illustrate the theoretical and conceptual knowledge in such courses as strategic and urban planning, community development and urban leadership. In each of these courses, students were required to build on the case studies I discussed and presented by developing their own case studies. Therefore, by end of the course we had compiled extensive knowledge on the metropolitan area by doing original research on leaders, major policy issues, or organizations in the urban region. Moreover, the students were able to study and learn through the case study approach and ultimately develop their own case study by the conclusion of the course.

PROFESSIONAL SERVICE

Professional service is one of the three areas faculty members in higher education are required to address in their annual reviews and also as part of the promotion and tenure process. However, in the past it has not been given nearly the recognition in the reward structure as teaching and research. In recent years as higher education has placed more emphasis on community engagement and public accountability, now professional service is seen as one means to address these issues. Just as a number of discussions take place on its importance, it becomes apparent that professional service is an important function for faculty to be involved in as teaching and research. In fact, it is through professional service that faculty can gain first hand experience in many of issues discussed in the classroom and explored in research. In the future an important question to address is how is professional service evaluated in the promotion and tenure process. Many higher educational institutions are already moving forward on this issue. In fact, as early as 1987 Ernest Boyer stated that service goes beyond the scholarship of discovery to the scholarship of integration, application, and teaching.

In some disciplines that are more applied such as business, health, and education, professional service is an integral component of a faculty member's work. Without professional service the work of the faculty member would not have a complete orientation to his/her field of study in these applied disciplines. Although the field of urban studies is considered to be a social science, it has both a theoretical and applied orientation. As a professor of urban studies, I have always felt it paramount to be involved in the community studying first-hand what I discuss in the classroom and pursue as a research topic. I have approached this in a number of areas.

First, for over a year I organized, directed and implemented a regional strategic planning process. The purpose of the process was to create an economic development agenda for a region of one million people by involving the community in setting the agenda. This process involved facilitating nearly 100 task force meetings and holding over a dozen forums to garner public input. In each instance, I, as a faculty member, was using my classroom and research knowledge and skills to assist the community to create a document that had a tremendous amount of public input and support.

Once the project was completed, I had a knowledge base on the community that was invaluable because I had learned who were the major leaders in the public, private, and nonprofit sectors while at the same time understanding their value and belief systems for the region's economic development. Such knowledge was extremely useful in discussing these issues in my urban planning courses. Since my role in the regional strategic planning process was primarily one of facilitation, I was able to take a neutral, non-threatening orientation toward the project, and otherwise it could have been seen as a power-brokering situation with a conflict approach. In this case the facilitative role was a beneficial one for the university and for the center I directed because it led to long term visibility for both and, ultimately, a number of new contracts and projects.

Second, through professional service projects, faculty can involve students in community projects that have potential out of classroom learning experiences that will create a level of knowledge and expertise that ultimately may assist the student with future employment. Because much of my research and teaching focuses on strategic planning, I continue to facilitate strategic planning retreats for local governments and organizations in the community. A student assists me with the facilitation and through such an experience becomes acquainted with the issues and the leaders of the particular community and develops his/her facilitation and writing skills. In this type of project everyone is a winner—the community is getting the service for a cost that is considerably less than would be the case with a consulting firm, the university is establishing a reputation in the community, the faculty member is fulfilling his/her professional service requirement, and the student is given the exposure to the community and knowledge outside of the classroom that may be beneficial for future employment.

Third, through professional service work more external funding is garnered for the university that can be used for employing students. I have found that each retreat leads to additional projects in the community. For example, universities usually have a survey research unit that fulfills a needed service to the community. In such units students serve as the survey researchers and gain first hand experience about formulating a questionnaire, implementing the questionnaire, and tabulating and presenting the results of the study. Again, this is an extremely beneficial service to the community and is a neutral and non-threatening role for the university to play. In addition, the results of such a study can be used in a faculty member's teaching and as part of his/her research agenda.

Once a university has established a reputation for such work, more projects will be generated because many local governments and organizations need input from their clientele or citizens, and survey research is the most economical and best means to get this data. Each survey provides experience and funding for the students, faculty, and university. In today's technological world most of the data can be gathered through a computer aided system that makes it less laborious for the students involved in the work. Such studies ultimately can have an impact on state and local policy and often bring a great deal of media coverage to the university.

Fourth, another means to assist local governments and organizations is through focus groups. Again, this is a way for a center and university to play a facilitative role needed by the community. In order to ensure the legitimacy of the data, focus groups must have a neutral source to gather the information and report the findings. As with the facilitation of the retreats and the survey research projects, focus groups provide an opportunity for student involvement. A faculty member can play the lead role in developing the project and the focus group questions while the student can assist in the implementation of the focus group and the compilation of the focus group report. Again, such work helps the student to develop his/her organizational, writing and listening skills. All of these skills are extremely important for a student to have as s/he pursues future career goals.

Professional service is an extremely important part a faculty member's workload and needs to be rewarded and recognized for the role it plays in establishing a university's reputation locally and nationally. As the public demand universities be involved in their respective communities, then professional service work of faculty involving students will be viewed as a win-win-win situation for all (students, faculty, and community). From my personal experience the personal and professional relationships that I have built with community leaders and students, while involved in professional service projects, have greatly benefited my teaching and research.

RESEARCH

Research in higher education is highly valued because of the prestige and recognition it brings to the institution as well as the external funding that may be associated with it. In addition, it is one means that faculty use to ensure that they are current and well respected in their discipline. Moreover, it provides an avenue for student involvement with the faculty member while developing his/her intellectual development. At the same time all parties are working together in a team setting. Today, universities have found it extremely beneficial to have not only graduate students but also undergraduate students involved in a faculty member's research. For this professor, a major focus of my academic career has been working with students involved in professional service activities that ultimately lead to academic publications.

First, as discussed previously under professional service, I directed and implemented the first ever regional strategic planning process in the Dayton, Ohio, metropolitan area. It was a lengthy and challenging endeavor. Therefore, at the completion of this major project, I took the opportunity to publish two case study articles that described and analyzed the process and end products of this project. In addition, I felt it would be worthwhile to investigate the degree to which others in the United States and around the world had an interest in the same topic. Therefore, I organized and implemented a major international conference on the topic of regional cooperation. In so doing, I had a call for papers and was surprised to learn that a significant group of others were interested in researching and presenting on the topic. What was even more enlightening was the degree to which the topic was of interest to both academics and practitioners. When the conference was finally held, approximately 60 professionals from across the United States and as far away as Australia came to Dayton, Ohio to discuss the topic of regional cooperation by presenting case studies. The paper presenters compiled their material and submitted it prior to the conference in order for each participant to have a copy of the proceedings at the conference. In addition, a number of local government managers attended the conference because of their interest in the topic.

Once the conference was concluded, it gained visibility for its timeliness and insightfulness on the issue of regional cooperation. Through my networking with the National Civic League, I was surprised to learn that they were interested in selecting papers from the proceedings as one of the journal issues of the National Civic Review. Obviously, I was pleased with this selection and worked with the editor of the journal to compile the fall-winter 1992 issue of the National Civic Review: Making Citizen Democracy Work. The title of the issue was "Partnerships for Regional Cooperation," and it consisted of six case studies. Subsequently a number of other issues of this journal and others have focused on this topic and even the National Association of Regional Councils has developed an entire journal, The Regionalist, devoted to the topic. Because of my initial work in the arena over ten years ago, I serve on the editorial board of The Regionalist. Much of the material published in the journal uses a case study approach.

Second, because of my work on the topic of regional cooperation, I was able to publish two case study articles in national journals. In both cases I analyzed and synthesized what I had learned by undertaking such a lengthy facilitative process. Since this was and continues to be such an important topic, it was relevant to academic journals. Both articles illustrate how a faculty member can use her/his work in the professional service arena to develop and enhance academic research. They are examples of what Ernest Boyer considered to be the scholarship of application. In my case it was helpful to reflect and write on the topic because it assisted me in analyzing how I become a better facilitator in the future.

Third, because of my reputation for the professional service and applied research work, I had the opportunity in 1996-1997 to direct the Office of University Partnerships for the U.S. Department of Housing and Urban Development. During my tenure as director, I decided to build on my past work by developing case studies of the grant programs our office administrated. The grant program, the Community Outreach Partnership Center (COPC) program, was only four years old and needed visibility. The program was created to get colleges and universities more involved in addressing the needs of economically distressed communities across the country. The annual competitions usually generate approximately 100 applications and only about 15 grants are awarded usually for $400,000 over a three-year period. Thus far, the recipients include the elite schools (Yale and University of Pennsylvania), the nationally recognized publics (UCLA and Ohio State University), the urban institutions (Temple and Portland State), and community colleges.

In order to disseminate what has been learned from these grants, I organized a national conference of the grantees and invited them to submit papers about their programs. Needless, to say each presentation was a case study of what had been their successes as well as failures in the college or university's partnership with the distressed neighborhood. It is incumbent that each grantee work with the neighborhood to implement the grant and the majority of the funds must be used for outreach services to the targeted geographical area. After our national conference of the COPC grantees, I worked with the editor of the Metropolitan Universities: An International Forum journal to compile an issue on the COPC program. That issue titled "Community Outreach" was published in the spring of 1998 and included five case studies. Since I was at HUD on an intergovernmental personnel assignment, this publication allowed me to continue my academic work while at the same time generating national visibility for this relatively new but innovative grant program.

Fourth, after I completed my HUD assignment directing the Office of University Partnerships, I was invited by the Fannie Mae Foundation to serve as the reviewer/evaluator of a new grant program being initiated on community-university partnerships. In that capacity I worked for a year to assist Fannie Mae in awarding $7.5 million to colleges and universities to work in economically distressed neighborhoods. Each grant awarded was an evolving case study of a university-community partnership. Because Fannie Mae had such a large number of applicants for these grants, they held a round table session prior to the 1998 meeting of the American Collegiate Schools of Planning annual conference. For that roundtable I was asked to compile a paper on what I had learned from serving as the Fannie Mae evaluator. Since the roundtable, Fannie Mae has invited me to revise the paper in order for the foundation to utilize it in a monograph they are developing on community-university partnerships. This is yet another example of how professional service work can be turned into a scholarly publication.

A fifth example of converting professional service work into academic publication comes from my year at HUD where I worked with the U.S. Department of Education to put together a national conference showcasing the case studies of school/university/community partnerships. With a number of nationally recognized speakers on this topic, the conference was held in Washington in early 1998. Because of the interest in the topic and for the first time the two federal agencies had collaborated on an issue, the proceedings of the conference are scheduled to be published by the U.S. Department of Education. The majority of conference presentations focused upon case studies of exemplary school/community/university partnerships.

In all of these cases of converting professional service activities into academic publications, students have been involved in assisting the professor complete the work. Through such involvement the student learns how to integrate his/her academic course work into other areas. In addition, this involvement provides the student with an opportunity to network with professionals outside of the normal classroom/student environment. Therefore, as with the author's professional service work, this becomes a win-win-win situation with the student, faculty member, and the university all benefiting by the research having an integrating orientation. In many ways this builds upon the traditional academic viewpoint but is different in that the community and public policy arenas are deeply embedded in the work.

TEACHING

With over 20 years of classroom teaching experience in the higher education arena, I have found that at an urban institution like Wright State University, students must identify with the course content if they are to excel. Therefore, since my courses have primarily been interdisciplinary and oriented toward the metropolitan area, I have increasingly used the region as the laboratory for my students' assignments. In such courses as urban planning, introduction to urban studies, community development, and urban leadership, the content and course objectives lend themselves readily to assignments that provide the student with the opportunity to study, analyze, and synthesize material in the local area. For example, in the urban leadership course, the students are required to compile a case study on an urban leader or a major urban issue. In so doing, they must justify why the person is a leader or why the issue is one to be studied. In most cases as the student undertakes the compilation of the paper, he/she must conduct interviews in the community. This affords them an opportunity to learn not only from a faculty member, book and academic resources but also from the numerous community resources that are available. Therefore, the community is being used as a laboratory.

Since the majority of my students are older, nontraditional ones with full-time employment, most of my courses are for a three-hour period in the evenings. I have found that lecturing for three-hours is difficult for me and the students tend to need more interactions than just lectures. Therefore, I always use my work in the community and their work in the community and at their job sites as a means to establish interactive classroom involvement and discussion. Usually, I lecture for the first half of the class on the reading on academic content and then spend the other time seeking their input on the applied aspects to the course content.

In recent years, as I have become more actively involved in facilitating retreats in the community, I have not only used the content of these retreats as examples for classroom material, but have also used facilitation in the classroom. For example, after I have presented the conceptual or theoretical content in the first part of the class, I will break the class into small groups assigning one student to be the facilitator and reporter of the group's activities. Since part of the course grade is classroom participation, then I require each student to be a facilitator/reporter once during the quarter. Once put into small groups, each group works on the same scenario. The scenario has been developed from my professional service work in the community. It presents the situation of a community/organization with an issue or problem to be dealt with by a team. Then the scenario has a set of questions that must be addressed in order to contemplate a solution or working framework for the problem or the issue. The students are given approximately 30-45 minutes to discuss the scenario and the questions. They are also given the flexibility to add to the case (scenario) and to the questions. At the end of the break out-groups, they come together as a class, and each group presents their conclusions. Usually, this concludes with debate and discussion of each group's approach to the problem or issue.

The objective of such an assignment is multiple. The students have an opportunity to understand how the theoretical or academic material can evolve into a real-life issue or problem. Secondly, they become part of the solution to the issue or problem because too many times we only discuss the problem and not potential solutions. The solutions are usually debatable and that lends itself to a lively class discussion. Thirdly, the students are put into a very structured team setting in which they know their fellow classmates and the professor will judge their output. Therefore, the peer pressure is applied to garner their best collective critical thinking and present it to the entire class. Fourthly, all of the students, and particularly the facilitator of each session must work on and enhance his/her listening and presenting skills. These are two skills that are important in their future careers. Just as the purpose of the written work is to enhance their thinking and writing skills, the objective of the facilitation's is develop skills that are needed for an educated person involved in teamwork.

As a professor of urban studies, I have been able to use my scholarly publications as part of my course assignments for the students. This has benefited me greatly because the students become aware of my professional service work and its importance. In fact, because of my work in the community, I was invited to write a chapter for a book on a locally elected leader. The book was published by Jossey-Bass, and I have used it in my urban leadership class. The leader was a former county commissioner and I often have her speak to the class on leadership. All of this gives the students a chance to understand how teaching, research and service are fully integrated.

In the previous sections when I discussed the linkage and integration of professional service and research, it is important to note that I also use my case study approach from these in my teaching. For example, a course i have taught in recent years is community development. In that course, I am able to use the numerous case studies from my HUD experience and my work with the Fannie Mae Foundation in my lectures. In addition, once I utilize this the case studies in the lectures, I also build them into the scenarios for the facilitative exercises. Finally, all the culmination of the lectures and the facilitative discussions become the source of material used in testing the students. In that way the students have an opportunity to take their thinking to a higher level of development on the exams since the other discussions/exercises have given them the opportunity to contemplate similar material.

CONCLUSION

In conclusion, the case study approach is an important concept and mechanism for this university professor to use in integrating her teaching, research, and professional service. It is through this approach that students have the opportunity to learn and apply their material. By bringing into the classroom real world experience from community or other types of work settings, students experience how a professor's teaching, research, and professional service are all interrelated. The students are able to understand how theoretical and conceptual material can be converted into real life case studies. In over 20 years teaching, I have found that using the case study approach increases the retention rate and academic success of students in an urban higher educational institution. At the same time, it has provided me an opportunity to gain national and international visibility and recognition for my research and professional service work.

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CASE METHOD AND EVIDENCE-BASED ADMINISTRATION (EBMa), MEETING POINT IN UNIVERSITY TEACHING INNOVATION

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Abstract

This paper poses a methodology, which is complementary to the case method in university Business Management teaching. Its purpose is to provide the student with a tool that performs a systematic search of quality solutions to the problems pointed out by the case. We will use Evidence Based Management (EBMa) to this objective. It is a new business concept imported from Evidence Based Medicine, which is fruiting significantly in medicine field. EBMa supports its analysis, actions and managerial decisions on the best possible evidences in organizational literature, considering manager's rationality, experience and abilities. The method we propose is supported on a mix of case method, EBMa process and new information and communication technologies.

KEYWORDS: Evidence-Based Management (EBMa), Self-learning, information society, case method.

INTRODUCTION

The teaching of Business Administration and Management is claiming for new methodologies in accordance with a number of new circumstances, which have been affecting education in this discipline and in the various subjects about organizational management. Proximity to business reality has traditionally been the main requirement for the different university levels in this field. Case method development has been a significant influence in this matter [Gode & Hatt, 1967; Rodríguez, 1995]. Students self-learning, management learning included, has been a second characteristic of the latest expectations in this teaching. Students get an increasing relevance in planning and programming of contents and in timing of their own training. In the end, the goal is that the student self-manages his/her own learning. A third characteristic is that knowledge transmission must not be only in a from-teachers-to-students direction. Self learning, once again, requires to acknowledge that students are responsible for looking for information and knowledge, a so the teacher becomes a support figure in teaching-learning process with the role of tutoring and mentoring. A fourth feature to be considered is the massive involvement of new education means for business administration and management teaching, based in the information and communication society.

So, there are four dimensions that act a s a framework for teaching innovation in Management disciplines. The first dimension is a continuum between theoretical and practical teaching, in which an increasing of closeness to organizations' real situations is asked for [Mintzberg, 1983; Pérez & San Román, 1975]. Second dimension is referred to the degree in which teacher and students combine participation and control in the teaching and learning process, where an interchange relationship in the respective control areas occurs [Brown and Atkins, 1988]. In the latest times students are taking on more and more responsibilities in the design and evaluation of their own learning process [Benedito, 1987]. The third dimension is referred to the participation level of the student in the learning process. We can tell three different levels for this dimension: reception learning (in which there is a transmission process from the teacher to the student), guided finding learning (in which the student finds new knowledge and skills by him/herself but with tutorial or leading action by the teacher), and autonomous finding or self learning [Ausubel, Novak & Hanesian, 1983] (in which the student must do research and induction in order to get skills, values and knowledge), specially in workgroups [Demory, 1988]. Innovation in Management education goes across this dimension, providing teaching tolls and methods inside organizations, where the companies put data and tools at the disposal of the employees, and these use them. We can include this trend in the so called cooperative learning method [Cooper, Malone and Harris, 1995], that states a group structure which is used for case discussion, since it encourages relationships among students in their own training, as well as team task development and eventual evaluation. Cooperative learning structures push towards an active teaching-learning process and both cooperation and interdependence are important aspects in this kind of learning [Mauro & Cohen, 1993]. The effectiveness of cooperative learning depends on whether integrated both students and teacher are integrated in it. Moreover, it enables a suitable communication since it takes oneself, other people and the context towards a relationship scheme, getting all of them identified in the communication [Hadley, 1995]. The fourth dimension is about the use of new technologies, specially computers and telecommunications, which play an essential role of the hypertext in order to move free inside the learning process through different contents and the use of the internet to join different sources of information that are distributed all around the world [Aparici & García, 1987].

We believe that in order to rate a teaching initiative as innovative in Management, it has to be located in the most extreme levels of the four dimensions, i.e., the initiatives must take a leap forward towards practical training, they must allow a larger role of the student in learning management (including planning, programming, organization and evaluation), they must base self learning on research as a central method and make a large use of new technologies, as well as of audiovisual means, telecommunications, computers and the internet.

We present a new methodology that combines the case method with EBMa. We aim to get the maximum performance out of new communications technologies in Management education. The information society is not only demanding a new change of mind to take part of a new reality which limits are still unknown, but it also facilitates transforming knowledge tools through new information and communication ways.

The proposed method uses the case itself, multimedia techniques and the effective use of reachable information. It is based in the case in order to take profit of plenty information around, using a management tool (EBMa) as well as the case method in order to analyze, diagnose and define a specific managerial problem. In the following pages we will elaborate what EBMa really is and how it should be applied in combination with case study in Management teaching.

Our proposal fulfils the four requirements that have been pointed here. It is based on Evidence Based Management (EBMa), a management tool that counts on investigation results as an essential source of knowledge and learning for the company and its managers. Evidence Based Management may also be considered as a tool for managers continuous training [García del Junco & Casanueva, 2000] and its principles can be applied to other educational levels, from occupational professional education to university teaching, as well as it can be of appliance in doctorate studies or MBA.

EVIDENCE-BASED MEDICINE, THE NEW PARADIGM IN CLINIC PRACTICE

In order to understand why EBMa arises, we must go back to its antecedents, Evidence-Based Medicine. Its origins can be found in Paris in the middle 19th century, when Louis carried out an experiment. Bleeding was a common therapeutic practice for all sorts of diseases. Louis decided to apply his "numerical method" to assess this practice efficacy in 78 cases of pneumonia, 33 of erysipelas and 23 of pharingitis. He compared the results with patients that had the same pathology and who had not been treated with this therapy. He did not find any difference. In 1834 Louis created a movement that he called Medicine D'observation, which contributed to eradicate useless therapies as bleeding. His findings had great importance in that time in France, England and United States [Garcia Alonso, 1997]. A more recent example [Ruberman, Wienblatt & Goldeberg, 1977] can be found in an observation which has been done on patients who suffered ectopic ventricular heartbeats after an infarct of the myocardium, which means a high risk of sudden death. He found that this extra systole can be avoided with specific medicine. That caused that this medicine was prescribed to those patients who had had an infarct and had unstable cardiac rhythm in a massive way [Morganroth, Bigger & Anderson, 1990]. However, through random controlled practices, it was demonstrated that some of these medicines increased the risk of death in such patients instead of diminishing it, and that is why the routine use is no longer suggested [Echt, Liebson & Mitchell, 1991]. To sum up, Evidence-Based Medicine is a conscious, explicit and sensible usage of the best available scientific evidence to make decisions about individual patients' care [Sackett, Rosenberg, Gray, Haynes & Richardson, 1996].

It is in 1992, when Sackett and his investigation group, placed in the University of McMaster in Ontario (Canada), published in JAMA magazine [EBM Working Group, 1992] his first paper about EBM, in which they declare themselves inheritors of Louis Medicine D'observation, and proposed a paradigmatic change in medical practices.

In common medical practice, doctors follow methods and give solutions which have been empirically studied and which are accepted without criticism. On the other hand, Evidence-Based Medicine intends for clinic practice to fit to available medical investigation, so that, once the doctor has found it and evaluated it, it can be applied to improve patient's care [Bravo & Campos, 1997].

Evidence-Based Medicine is a process which lasts a practitioner's lifetime, and in which patient's care created the necessity of clinically important information about diagnosis, prognostic, treatment and other clinic questions.

BASIS FOR EVIDENCE-BASED MANAGEMENT (EBMa)

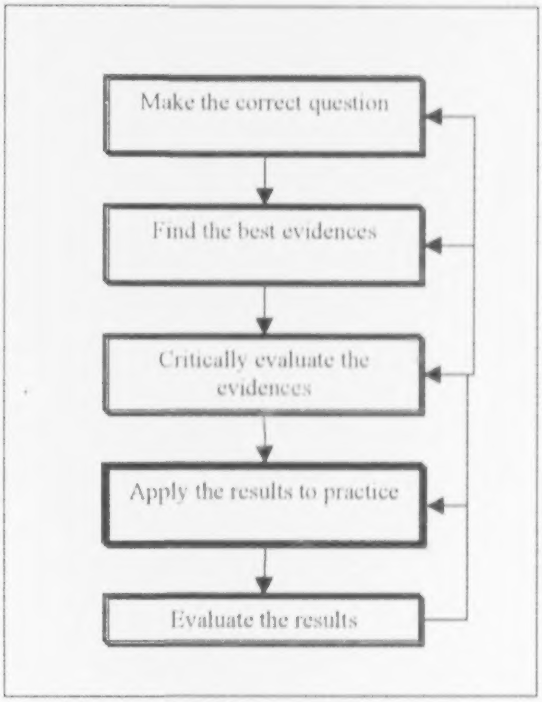
Predecessors of Evidence-Based Medicine state that its principles, strategies and tactics can be universally used in all the medical professions [Sackett et al., 1997], and this encourages its use also in other areas, to try to apply these principles in any area where people face similar problems as it happens in management of companies and more concretely in managers actions.

The best available evidence is any relevant investigation about the accuracy and precision of the current explicative models, about the effectiveness and efficiency in specific options to solve concrete problems, about the reliability of the prediction techniques, etc., in any company management area.

The EBMa means to base the analysis, the actions and the manager's decisions on the best possible evidence, but it is based on the techniques of business administration, including those which have been adapted from other knowledge areas, and on the manager's ability, due to the fact that EBMa can not substitute the former nor the later, although it can help them and keep them actualized.

The Evidence-Based Management (EBMa), requires a system approach which integrates both the best external evidence and the experience. It can not produce a consulting manual, based on a huge collection of typical cases. The external evidences can help, but never can substitute capacities and abilities, which any decision maker needs. It is just knowing how to manage with effectiveness and efficiency which helps to decide if the external evidence can be used and in which way they must be integrated in making decisions.

FIGURE 1
THE EBMA PROCESS


Make the correct question
Find the best evidences
Critically evaluate the evidences
Apply the results to practice
Evaluate the results

We propose a definition of this concept, although it has been inspired in Sackett's papers [1995, 1996, 1997], which expresses the meaning of Evidence-Based Management (EBMa): the explicit conscious awareness and wise usage of the most useful available evidence when making decisions. It means to integrate in management the best available evidence from valid and reliable information. It is a methodological support when making decisions, fitting them as much as possible to the Proportional Law in Administration Theory (balance between effectiveness and efficiency). Evidence-Based Management (EBMa) lays on four basic assertions:

1. Administrative activity, the mixture of art and science.
2. The management process as an essential part in the management theory.
3. Proposed evidence as a factor, which helps when making decisions. Investigation in public and private organizations which have been published in magazines or which are available in data bases are an essential reference in management jobs. Computers are an essential working tool, effort and knowledge has become the main business need in order to success [Muñoz, 1999].
4. All kind of customers' preferences.

EVIDENCE-BASED MANAGEMENT (EBMa) AS A PROCESS.

The usage of Evidence-Based Management (EBMa) is a self learning process, continuous and led by the same managers, and it is going to last all their career long. This process will be determined by knowledge needs arisen in their departments or their companies as they have to make an analysis, decision, or to solve a problem or to put an action into practice.

To facilitate EBMa understanding and practice, one can think of it as a process, which consists of a number of stages or steps [Sackett et al, 1977], which will be describe are represented in Figure 1.

To Ask The Correct Question

To transform the managers information and knowledge needs in precise questions, in a way which they can be answered. This question will be the guide to start the search of the best evidence, of its best answer.

It consists of defining in a very concrete way the proposed problem, asking one or several brief and precise questions which can be answered. Detecting a problem causes a need to make concrete decisions. These problems arise in any management positions, i.e. in any commercial, operations, human resources, financial, organizational, etc., environment. Answers and decisions are needed in different time spans. Among the main difficulties, which SME have to go through, incapacity to process the knowledge is one of the most important. Often SME do not face a reality, which demands an attitude change. They think if they ignore this change it will disappear [Allsopp, 1995] or if unfortunately it does not disappear it will be avoided in one or another way. This incorrect perception of the new reality does not help much to formulate a proper strategy.

The question, which conveniently focuses on the problem, can be easily built and become more efficiently analyzed if we try to divide it in four different areas:

a) To look at the problem in the most practical and correct way, especially focusing upon the individual, individuals or sections, which are affected by this problem.
b) To specify the needed action.
c) To compare the different possible ways of action, when it is pertinent.
d) To establish the variable or variables which are going to measure the results of the action.

An example of this type of question would be: "some of our middle managers are more than sixty years old. We have the possibility to incorporate them in a initial computer and EBMa data base course and so relief them of their present program which is being taught by a consulting company. Would we obtain more productivity from them? Would they make better use of the course than those who are under sixty?"

The right question leads us to the core of the problem and also shows the precise knowledge of the required information. Therefore it is directly related to the company problem and it is formulated in a way which leads the investigation towards pertinent and concrete answers. The better we know the information that we are searching the more adequate our diagnosis will be.

To Find The Best Evidences

It is the process of searching the best evidences with which to answer the mentioned questions. The search of scientific literature should be made through articles and magazine data bases, which can be consulted in CD-ROM or by means of the Internet. An appropriate search strategy is essential in this phase and with some practice we can get important advances quickly. This will allow any manager to make an effective search in a very short time. On the other hand one needs to elaborate one's own EBMa sources, where most important articles, which have been previously critically studied, can be found in a summarized way. These new data bases will facilitate the search task for managers, and as investigators, managers themselves can contribute with new evidences to complete them.

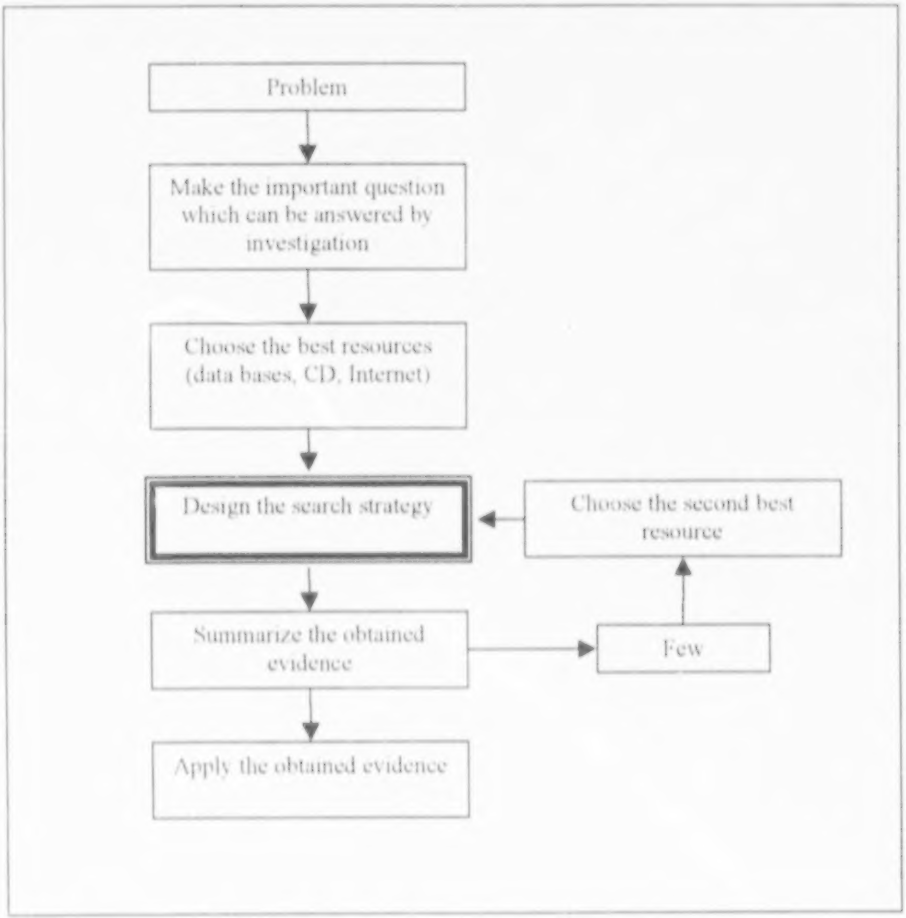
Now we have to find the best evidence. Answers for the questions exist in most of the cases, or at least we can always find some information, which can help to make a proper decision. Here evidence is synonymous with information, therefore we have to take into account three different aspects:

a) The question, which must be investigated and answered.
b) The best responses to the problem, which come to mind at that moment.
c) The sources of evidence, which should be investigated to discover the best solutions.

The last step is essential. It is the reason why there is EBMa, since it makes use of the synergy mix of technology, computers and knowledge. The reason is that many multinational companies and SME depend more and more on technology changes and its distribution of information and knowledge [Ormaetxea, 1999]. However, the media, even those, which are specialized, are not successfully helping this need of information, perhaps because sensitive social conscience does not exist yet. New realities of the twenty first century are slowly emerging. There are several requisites needed to make a successful search using the new technologies. It is important to know:

a) What data bases/resource are available? We must try to make a good use of the Internet. We have to keep in mind that the Internet increases by 10,000% a year and the most valuable multimedia company is no longer Disney or CBS, but one which was a complete unknown only a few years ago, America On Line (AOL), which at the present time is valued at one hundred million dollars [Ormaetxea,1999]. AOL activities related to information have become the most changing sector. Also, PC has such wide and general functions that it is seldom used in more than 5% of its capacity [Burrows, Reinhardt & Green, 1999]. Thus, we can search a lot available information with a small cost and eventual positive results in management, which was unknown until now.
b) The way in which data bases are organized.
c) Searching terminology, which must be used and the field of main interest.
d) The way to use browsing software.

FIGURE 2
GENERAL SEARCH STRATEGY


Problem
Make the important question which can be answered by investigation
Choose the best resources (data bases, CD, Internet)
Design the search strategy
Choose the second best resource
Summarize the obtained evidence
Few
Apply the obtained evidence

It is suitable to fulfil these requisites to state a general searching strategy. The so called evidence researched is a critical step in EBMa, it permits us to find the required information in order to make decisions. This is the moment that we must optimize the combination computer, on-line nets and information. The general search strategy includes the design of the browsing strategy. Both of these can be seen in figures 2 and 3 in a systematic way.

The general strategy is the framework where a logical implementation is developed. For instance, the problem demands that we must exactly know what is needed, the assessment of the consequences produced by a incorrect decision and of the effective choice of needed information, in order to decide between the alternatives, since we are working on a problem in which a decision has to be made. Most of the times in an organizational context the difficulty is on knowing how to face the problem in the right way, and it is then when we can effectively aim the search of the solution. It is necessary to ask questions, which are relevant and susceptible of search and investigation. To access the needed information, the first step is to know how to change the given problems into questions. Next the most probable resources are chosen, these being the sources of evidence. Quick information sources must be detected (text books, data bases, electronic instruments, disks, CD-ROM or Internet). The searching strategy is analyzed in figure 3. Once the research has been made, a summary of the obtained evidences is produced, making them operative. EBMa tries to access the evidence sources, which are really effective for the company. It means that EBMa tries to put aside the irrelevant, redundant or superficial information for the searched subject. And it tries to avoid topics and really prove effectiveness of what is the trend in business articles. Thus, abstract investigation becomes available. It does not care for a scientific rigor as much as for effectiveness in application. Therefore evidence application is the final result in the searching process. However, as it has been previously mentioned, it is a recurrent process, and so, when examining the evidence summary, if it is found out that finds these are few or not very good, one must return to a previous stage in the process choosing the second best probable resource and establishing a new search strategy for it.

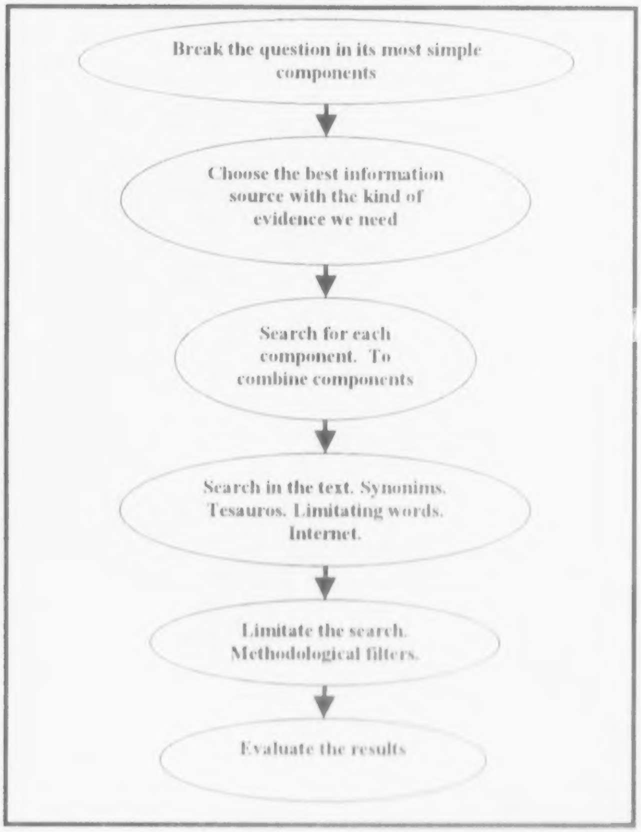
Critical Evaluation of Evidences

In this phase a double process to critically evaluate the found evidences must be made. In spite of the spectacular business article improvement and the amount of complete analysis about very different management areas, all the investigations have not been rigorously studied and not all of them have the same capability to solve the proposed problem. One has to decide here the validity of the evidence, i.e. how close to the truth it is, as well as its utility and whether important results can be obtained when applying them to solving a specific business problem.

Once the best available evidences have been found, an evaluation must be made as a previous step in checking the adjustment of these evidences to the concrete problem, which has to be solved. This evaluation or critical valuation is focused on two aspects which must be studied, order does not matter. It is not realizing a meta-analysis study [Hunter & Schmidt, 1990]. An exhaustive examination is not needed but a quick and critical assessment of the evidences to prove its value or closeness to the truth, as well as its effectiveness in solving these problems.

So, the best thing is to find evidences, which fulfil the random principles and the statistic rigor, but if none can be found in the search, studies dealing with the same problem (although not so rigorously) can also be taken into account. In this last case one could find evidences whose results state in a stable way that a complete action means a solution for the problem; then although an random study has not been made, one can guess that not being random is not going to affect the results. So it is the decision maker who chooses according to his experience, mastery and ethic. It is not so awkward when using negative studies, which show that a particular action is not going to lead us to the correct solution; in this case the risk of using this not very rigorous evidence is less. A last possibility remains for the decision maker, and it is to carry out a "N-of-1" practice, when it is convenient for the company and the director who is solving the problem.

FIGURE 3
DESIGN OF SEARCH STRATEGY


Break the question in its most simple components
Choose the best information source with the kind of evidence we need
Search for each component. To combine components
Search in the text. Synonims. Tesauros. Limitating words. Internet.
Limitate the search. Methodological filters.
Evaluate the results

A "N-of-1" practice means proving just one solution or action to solve a concrete problem in the company, also using an random study. This means giving the company, individual or department who has the problem couple of periods. A first period which the solution to apply is practiced, and a second period in which it is not. The order of these periods is established in a random way. If possible people involved in the study must not know which solution is being applied. The objectives and results of the actions are checked (by means of measurements, interviews, company registers). The solution can be postponed as long as necessary to distinguish results when being applied and not being applied.

The second question to assess is the relevance that the proposed solution has for management. Basically it consists of comparing, in relative terms as well as in absolute terms, the different results, which are produced when the solution is applied and when it is not. This measures quantitatively if the evidence means a substantial improvement for the company.

Application Of The Results To Practice

Once the evidence, which is valid and important for solving the study problem, has been determined, a double question must be asked. First, if this evidence is available in the particular case in this manager's company and in the concrete situation where it is. Second, if the manager can join this evidence to his capacities and solve the problem in the way shown in the best found evidence. If in both cases the answer is yes, the only thing left to do is to put into practice the action which has been given in the article evidence.

Starting from a contingent view of the company, we may assume a nihilist position and refuse that evidence applied in other companies. Since they are two completely different realities, and if each company is different, each solution for a problem must also be different. However, as it has been mentioned in the introduction, this would lead us not to take advantages of the good external practices and to undervalue studies which have been rigorously made which try to set relations, at least with similar context. That is why the managers' role are so important because they are the ones who decide if the evidence can be adapted and applied to the given situation; and if it is not, what changes could be made to adapt it. The decision makers must ask themselves: can we use this evidence, valid and important for the matter, which we are analyzing? Can we use this evidence in our own company? And then decide. This consideration is as simple as important, since it means joining theory, experiences in similar companies and other results with the daily company management. It is important to take into account sector, geographic, cultural differences, as well as the workforce diversity, both in management and operative level.

Evaluation Of The Results

The last step is the evaluation of the obtained effectiveness. Because it is a process which is self directed by a manager, a consultant or specialist, a self evaluation is also to be done. Therefore it is very important to make a good evaluation of the results derived of this action.

The best way to make good use of EBMa when applying it in a company is by means of a test about its application in the daily work environment. This will enable to correct predictable mistakes and improve development, adjusting it to the needs of this organization. A structured way to make an evaluation is making self evaluation in the four basic important points which support EBMa. i.e.:

a) Self evaluation related to the questions, which need answers.
b) Self evaluation related to the search of the best available external evidences.
c) Self evaluation related to the critical assessment of the quality and potential usefulness of the evidences.
d) Self evaluation related to using the critical assessment when applying the management result.

In any case, EBMa is basically an iterative process. The best evidences to solve the problem or situation must be searched time after time, but, if in any phase of the process the evidence happens not to be applicable, we must start with the second best evidence that has been found.

TEACHING OF BUSINESS MANAGEMENT THROUGH EVIDENCE BASED MANAGEMENT (EBMa)

EBMa as a teaching and training methodology means applying EBMa process to the task of obtaining a significant self learning by the students. Just like any other teaching methodology it is a mix of methods, techniques and pedagogic means aiming to get some objectives. It is supported by various means and tools which might be more or less well known, but what makes this approach innovative is its own philosophy.

The task of teaching through EBMa is supported by the extensive use of Evidence Based Medicine, which has been massively applied in medical contexts. Even if EBMa will assume many of the elements of EBM, we propose an innovative method which tries to integrate three elements: the self learning process implied in EBMa; the most popular means and techniques of business management (specially the case method), and the use of means and techniques of the information society.

This methodology consists in two differentiated parts. The first one implies to teach EBMa and its use as a learning tool to the students. This knowledge transmission process must be planned, guided and monitored by the teacher. It implies to teach the students how to approach problems properly (in our centers it is typical to train the students in solving problems when real difficulties derive from detecting and approaching the problems themselves), how to pose the appropriate question which is a clear reflect of the problem as well as the starting point of a good evidence searching. The teacher must also provide an introduction on the ways to find the best possible evidences, making the students know the various databases, as well as the programs to use them and how to access to them. Moreover, students must be

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informed about the best searching strategies so that they can be efficient and get the best results with the minimum effort. They must also be trained in critical evaluation of the evidences and the assessment of the results of the application and of the whole process.

EBMa as a teaching process can be implemented in a short time through teacher's explanations and small groups seminars. They must involve a high practical component and use educational packages as essential teaching mean, and these must be of help as examples to support the explanation of the process. These packages would include problems, conveniently asked questions, articles containing good and less good evidences and a critical evaluation of the evidences. These elements would be gradually explained to the students. It is also suitable having the fitting technical means to directly access the databases, as well as having the students trained and ready on searching tasks.

The second part is the students self learning process itself, once they know the method to be followed. Our experience in innovative teaching activities led us to pose a methodology based on small teamwork rather than an individual researching work. Thus the search and analysis task is shared by all group members. The knowledge accumulation comes not only from the individual research effort but in all members mutual knowledge of the activities. This enables a scientific spirit among the students and makes important not only the results and evaluation of their search, but the fact that they are evolved in presenting their work rigorously to their mates, and contemporaneously the applicability of the method is shown.

EBMa AND CASE METHOD

This technique is to be developed during several sessions. In each of them a number of activities are implemented. These activities must be considered steps in a significant self learning process by the students.

The first step is the presentation of a company case. Before distributing the case among the students, some small groups must be established, when two important aspects are to be considered. First, whether the teacher or the students are responsible for groups formation. We think it is advisable that the teacher performs this task [Feichtner and Davis, 1985]. Studies on this matter support that the students prefer the teacher forming the groups, since subgroups disfunctionalities might appear when the group member are designed by the students. A second aspect to be considered is the number of members in each group. It is advisable that the group size is between 5 and 7. In very numerous classes (more than 100 people) the group size can be up to 10 members. Our research in postgraduate context is carried out with 6 people groups size. The method we are presenting is not conceived to work in a different context than small groups context. The use of the case study as a working tool has a central role, since it is used for the analysis and diagnosis of a given organizational situation. The discussion attached to case method helps obtain a proper identification of the problem to be solve. However, the proposed solution for the case and its technical analysis from the diverse organizational perspectives (strategy, organization, financing, marketing, operations, other) vanishes in group dynamics and among the students and teacher ability to solve the problem. Implementation of Evidence Based Management combined with case method organizes the technical analysis of a given company situation and provides students and teacher with a powerful tool for making up significant self learning which started with case study. Therefore, selected and presented cases must fulfill some conditions:

a) Authenticity: the problems at issue must come from organizations' reality and as close to present or future student's context, both in personal and professional terms.
b) The case must fit the field that is meant to be taught. As a principle, the cases must be referees to the contents of business administration Management. But inside Management, the cases must be referred specifically to the organization area where the learning process is taking place.
c) It is important that the situation by the case described is complete. Thus, no gaps or lack of relevant data and information must occur.

The mechanisms of the method include the distribution of a copy of the case text per person at the beginning of the session or in the last session, and allow a certain time for the student to become familiar to the problem that is posed before the discussion starts.

Once the case has been discussed among all the class members following the usual procedure applied by the teacher, and after a deep analysis of the case the problem(s) affecting the company partially or as a whole must be detected. After this diagnosis phase, the students should be ready for the second step.

Second step means applying Evidence Based Management. Once the diagnosis has been produced by the whole group (the class), and in order to provide a solution to the case that is based in management techniques and in EBMa, the small groups work starts. Each group must follow some steps or phases in their work:

Pose A Question(s) That Reflects The Problem

The questions proposed by the students must be based on the class diagnosed problem and must pose a question(s) that most properly translate into the right terms for research the specific identified problem. The student inside a small group in this phase is learning to know what is needed to learn in an organizational field and how to break it down in manageable parts. The question(s) must be already posed in this phase. The point is how to follow the study and learning process until a useful response to the problem is given. This small group working process must produce a report that we will denominate A, and it must contain some points: a) specification of the problem that generated the question; b) Pose of the question and all its key parts, following EBMa instructions; c) Specification of the way how to answer to them, i.e., of the places where the scientific evidences for the search must be made (library, CD-ROM, databases, researchers, experts, other) and of who must make the search; d) A deadline to give an answer to the question; and e) a group critical assessment about how the whole process happened. So, the small group has a perfect working scheme that will provide eventual suitable solutions.

Location Of Evidences About The Problem

Inside each of the working subgroups, the research task to find best possible evidences about the question at issue must be shared among the members, that can perform it own their owns or together with some mate. Scientific and technical information must be detected, and it has to give an answer to the questions. The small groups members must know in this phase of the process searching techniques, such as bibliographic funds revision in libraries or internet on-line information consultation, or using of computer databases. More specifically, they must know: a) what databases supply the precise and proper evidences at disposal; b) how these databases are organized; and c) which terms must be used to access the information (tesaurus, limatators, free text, methodological filters, other). In this phase of the process it is advisable to bring to students mind a number of behavior patterns: 1) Looking around is funny, but it does not have any structure and is worthless in the end; 2) It is advisable to make very specific searches that eventually provide citations referring to the posed question, and the citations must be high quality; 3) It is important to focus the problem on specific study areas, usually on in management education since it is the subject in question; and 4) To remember the importance of maximizing self-experienced learning, minimizing the use of unidirectional teaching (teacher-student), even if this depends on the educational level that we are working in.

Selection Of Best Evidences

The small group meeting after searching phase counts on a number of evidences by their member found. Each member bring them forward and all the findings are organized. The task of selecting the best ones is next. In order to this a critical assessment of the evidences is due. In it, the rigor with which the problem has been studied in each case must be analyzed under scientific and technical criteria. This would produce a double output. On the one side there would come out a couple of evidences groups. One consisting of the rigorous and scientifically valid ones, the second consisting of the evidences that do not fulfill the requirements. These must be kept in reserve just in case first group evidences could not be applied to the specific problem at issue. On the other side a second output would be an evidences' ranking that tells between better and worse evidences. One of the essential products in this phase is the report produce by the group, called report B. Report B consists of a form where all the evidences are summarized, containing all the sites addresses, their descriptions and the technical characteristics of the undertaken study. From report B a discussion starts among the members, in which a critical assessment or evaluation of the evidences takes place. It is meant to obtain a number of conclusions that would take the form of report C, in which it is explained the selection of the evidence in each case, its rigor. etc. Report C also includes the assessment and ranking of the evidences, in case best evidence could not be used o does not provide satisfactory results.

Evidence Application To The Case Under Study

Once again the small groups work inside the large group (class) and there has to be a passing from theoretical to practical level. This means to study the way to apply the evidences that have been found to the proposed problem. In order to make this phase operative each group presents the main conclusions of B and C reports. From them, the large group starts a discussion to tell among the evidences to detect the best alternative in solving the problem. An structuring of the way in which theoretical knowledge is applied must be made. In practical sphere there will occur many coincidences between the found evidences and the critical assessment that each subgroup have made of them. This helps to invigorate the discussion and facilitate the way of solving the problem. In this phase, the teacher must propose the students to be able to foresee an estimation of what will happen after applying best evidence to the case situation, and show out the applicability to a specific problem.

If the first step of the technique is presetting he case and the second is application EBMa in order to find technical references to explain and treat the problem, the third step is presenting the final problem solution, after a large group discussion. This solution must contain a summary of the way how the conclusion is reached and subgroups reports A, B and C can be enclosed. Most enriching in this learning process is the late evaluation of the solution process development, and a proposal about how it could be improved in later times.

With this methodology we get an innovative way of teaching business Management that is based on real organizations problems, as well as in the significant self learning by the students, using most advanced technological means which are already at the disposal of educational centers.

CONCLUSION

New technologies will change substantially the old educational patterns. The model we are introducing substitute pen for computer, datum for information and individual group for teamwork. The case method, more than ever, becomes a basic and useful instrument, by teaching the studding how to communicate and work in a group. The case favors reflection, develops learning, increases control over spontaneous resistance and helps learning to work in group. Nevertheless, case method incorporates EBMa mechanisms with effectiveness in solving the problem at issue through managing technical information and knowledge in Management by the access to rigorous information sources at our disposal. Thus, we believe that this tool for teaching business and organizational Management produces a high synergy as a result of the combination of knowledge and technology, having information society as a framework.

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CHALLENGES OF DEVELOPING A CASE RESEARCH AND TEACHING PROGRAM IN A SMALLER ARAB COUNTRY: KUWAIT

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Abstract

Case method of teaching has become a powerful teaching pedagogy in management education ever since its adoption at Harvard Business School at the turn of the 20th century. As management education spread to different parts of the world, the relevance of case method has increased greatly. This is because of case method of pedagogy's ability to contextulize the management education. However, in developing an effective case research and teaching many internal and external problems do arise. In this paper such internal and external problems and the appropriate strategies to overcome such difficulties have been discussed in the context of Kuwait. The case research and teaching development program development experiences discussed in this paper will have relevance for similar efforts in other parts of the world.

INTRODUCTION

Ever since the case method of teaching and research was adopted at Harvard Business School, USA at the turn of the Century, case research and teaching have become integral parts of many business schools and their development all over the world. Over time Harvard business School played a leadership role in developing competencies in case research and teaching pedagogy both in the U.S. and in many overseas countries. As the management education and training spread all over the globe in the post second world war years, the importance of case research and teaching was increasingly recognized in many parts of the world. Case research and teaching provided context specific relevance and hence, usefulness of management education and training in different parts of the world. While the theoretical concepts, tools and techniques have been borrowed and utilized from the industrially advanced countries of North America, Western Europe and Japan, the complexities of their managerial application was brought home through case research and teaching. Such active case research and teaching efforts considered essential for developing purposeful management education and training in different parts of the world. In recent times, active case research and teaching programs were utilized to indigenize management education and training in many parts of the world.

In this process of indigenizing and making management education and training relevant and purposeful to country and regional contexts, leading schools of business administration in different parts of the world have developed active and sustained programs of case research and teaching. Through their case development efforts, these institutions played leadership role in helping other institutions engaged in management education and training to pursue case research and teaching and in turn make their management development programs more appropriate and purposeful. In this context, as a part of the overall programs for modernizing the management education at the College of Administrative Sciences, Kuwait University, Kuwait, a case research and teaching development program was initiated in

1998 and an administrative unit, Case Research and Teaching Unit was established as an integral part of the College in 1999. The major purpose of this article is to identify and discuss the various challenges experienced in developing an active case research and teaching program in a college of business administration in a smaller Arab country, Kuwait. The experiences and challenges discussed in this paper may have relevance to other case research and teaching development programs in other parts of the world, especially in smaller countries. This paper is divided into five parts. The first part will identify and discuss the various factors that provided the impetus for developing a formal case research and teaching program in the College. The second part will discuss the various challenges of developing a case research development program both from the external and internal environmental perspectives. The third part of the paper dealt with the challenges of effective utilization of case method of pedagogy both from the perspectives of instructors and students in the specific country context. The fourth part will identify and discuss the development and implementation of appropriate solutions to overcome the hurdles and challenges in developing an active and effective case research and teaching program. The final part is devoted to drawing conclusions based on the experiences in the specific geographic context and making recommendations for developing effective case research and teaching programs especially in smaller countries.

IMPETUS FOR A FORMAL CASE RESEARCH AND TEACHING PROGRAM

In many parts of the world, including at the College of Administrative Sciences, Kuwait University, Kuwait, the merits of both case research and case method of pedagogy are well recognized. As the management education model adopted is often that of the U.S.A., the need for application orientation and the development of managerial skills in the form of analytical, integrative, interpersonal interaction and expressive skills are recognized as the goals of management education. With such recognition came the recognition of the importance of case research and case method of pedagogy to make the business education more effective. Many instructors, especially those with advanced degrees from the U.S.A., were utilizing case materials either from the U.S.A oriented text books or procuring case materials from other sources such as the Harvard Business School. However, the inappropriateness of using such U.S.A., case materials is often brought home because of the contextual differences between the U.S.A. and many other parts of the world, especially for teaching courses with significant environmental relevance. Such an unsatisfactory situation often provided the impetus to initiate case research programs in many parts of the world including at the College of Administrative Sciences in Kuwait (hereafter referred to as College). Some ad-hoc programs of bringing experienced case researchers from U.S.A., and teaming them with the local faculty members for the purpose of case material development were developed and implemented. Such ad-hoc case development programs lacked continuity and generally proved not to be cost-effective. As the College initiated advanced degree programs such as MBA in 1998, the need for more sustained and continued program of case research and teaching became apparent. Such a need for a formal case research and teaching program was further enhanced by the desire of the College to seek AACSB accreditation. The AACSB started accrediting the non U.S. and Canadian business schools beginning in 1988. All these external and internal developments provided the necessary impetus for establishing a formal administrative unit as an integral part of the College. In order to bring the case research and teaching unit into existence, the dean of the College appointed a formal committee to formulate the plan for establishing the unit in 1998. By early 1999, the Case Research and Teaching Unit (CRTU) was established with a Director and formal financial and academic policies. The Director of the CRTU was aided by the CRTU Committee whose members were drawn from various functional departments of the College. The CRTU was established to develop and implement effective case research and teaching programs to benefit the various academic programs of the college. These programs are aimed at creating conducing environment for case research and teaching internally within the College and externally in terms of developing and sustaining the necessary relations with various organizations, both public and private, in the country. In the following sections, the challenges facing the CRTU internally and externally in relation to developing and implementing the case research and teaching programs are discussed.

CHALLENGES OF DEVELOPING A CASE RESEARCH PROGRAM

The challenges of developing an effective case research program emanate from both internal and external problems. While such problems to case research arise in any country, their intensity is further intensified depending upon the geographic size of the country and the degree of diversity of business organizations. These internal and external hurdles to effective case development will be discussed in this section.

For any effective case research development program, it becomes imperative that the faculty of the institution become enthusiastic about case research and its benefits to their academic careers and to the academic programs of the institution. In all countries, large and small, historically case research as a legitimate research activity has been relegated to secondary status compared to traditional forms of academic research such as publishing articles in professional journals. To some extent this situation exists even in advanced industrialized countries. In other countries, which emulate the academic traditions of the industrially advanced countries such as Kuwait, this problem becomes a major hurdle to the process of development of effective case research development program. The academic traditions and long established procedures formally recognize the traditional forms of research as legitimate research and case research is not recognized for academic recognition and hence, for purposes of rewards such as salary increases, promotions and other legitimate academic recognitions. The existing academic policies at the College have become a major challenges in creating the necessary academic incentive for enthusing the faculty to engage in quality case research activity. While the faculty members in general are sold on the merits of case research and its importance to make their teaching more effective and contextually more relevant, in the absence of proper academic recognition case research by the administration, it becomes a major challenge to actively involve faculty members in the case research development program of the College. Most faculty engage in traditional forms of academic research and in consulting and executive training rather than case research.

The problem of faculty incentives is further complicated by the fact that for traditional research activities there exist several alternative funding. Both internal and external research grants are available for traditional research projects and there was no provision for such grants involving case research projects. From the perspectives of the research funding agencies in the country, there was neither recognition of case research, nor funds separately allocated for such research. Similarly, while research release time is a possibility depending upon the merits of the case, there was no provision for case research release time. Such lack of support for quality case research has the effect of limiting active participation of the faculty in the case research development programs. Another problems in the same wein is the allocation research assistance resources specifically aimed at generating quality research materials.

One of the major internal problems is related to the lack of proper procedures for initiating, evaluating and administering a systematic case research programs. Such administrative and academic procedures and policies exist for traditional research activities, but no corresponding procedures existed for case research activities on the part of the faculty.

Traditional research approaches are more attractive to faculty members compared to case research activities for another important reason. The traditional research activities are essentially an extension of the training faculty members received as a part of their doctoral programs. In a sense, faculty members when they start their academic careers are already fully equipped to engage in traditional research but not to undertake systematic and quality case research activity. While many faculty members depending upon their pedagogical philosophies make use of case method of teaching, at least partially, they are not trained to engage in case research activity. Although many faculty members are involved in consulting activities, they often do not know how to use their consulting involvements as a means for engaging in case development activities. Similarly many faculty members at the College involve their students in small groups to engage in investigating the managerial practices of various organizations in the country. While such student reports yield rich prospects for developing quality case materials with additional case research efforts, no such follow-up case research activity takes place, because of lack of training and experience in case research on the part of faculty members. In addition to creating appropriate incentives and support facilities, providing appropriate training in case research and on-going guidance to faculty members engaged in active case research become critical challenges of developing a case research program.

Faculty who are not actively involved in case research often underestimate the rigor, effort and time required in developing quality case studies. In undertaking the traditional research, faculty members often sub-contract the field work part in the form of data gathering and the rest of the research project completion is carried out by the researchers themselves. Whereas the need for active interaction with external organizations and their executives to generate quality case research materials becomes a major challenge to many faculty members when they first start case research activity. With few exceptions faculty members are not used to such intensive interaction with external organizations and many problems faced in undertaking such field based case studies often has discouraging effect on the faculty members involved.

Development of an active case research program faces not only many internal problems involving the faculty, administration and support facilities, but also a number of external organizational environmental problems. Such external environmental problems are daunting in any country including in the industrially advanced countries. But such external environmental problems become more complex and challenging in smaller countries like Kuwait. In larger advanced industrial countries such the U.S.A., there is a great diversity of organization environment and a history of interaction between business schools and organizations -- public, private and social. But in smaller countries like in Kuwait, such organizational diversity and a long established interaction between business schools and organizations are often lacking or limited in scope. These and other characteristics of organizational environment pose critical challenges to an active case research development program.

The economies of smaller countries are characterized by limited number of organizations. In addition, typically there will be a few large organizations and a large number of smaller organizations. The larger organizations consist of large public sector organizations in key economic sectors and other larger organizations, typically family owned, in the secondary economic sectors. Such limited large scale sector is complemented by a large number of small and medium sized organizations in trade and services sectors. In all organizations, secrecy becomes a common characteristic. To the extent secrecy becomes a dominant characteristics, the opportunities for detailed field based case studies become limited. In the case of public sector organizations, revelation of details about the working of the organizations is often constrained by the political ramifications of such revelations. As public sector organizations are often subjected to scrutiny by various governmental bodies, the managers in such organizations have the tendency to reveal only those aspects of administration, which are required by law. Under these circumstances, it becomes a great challenge for case researchers to gather detailed information about the inner workings of such organizations, which will be necessary for developing detailed field based case studies. However, with focus on progressive privatization of public sector organizations and the need to improve efficiency and competitiveness of public sector organizations, in recent times the public sector organizations are more willing to share the details of the working of such organizations with academic researchers. This trend which is pervading all over the world including in Kuwait is expected to help the process of conducting quality field based case studies involving the public sector organizations.

In the case of large private sector organizations, the secrecy factor arises because of the family ownership and control of such organizations. In contrast to large corporate organizations in advanced countries, which are required to reveal a variety of information by regulatory bodies, the family owned large private organizations are not required to reveal information to the same extent. In a smaller country concern about family reputation considerations make the executives of these organizations hesitant to reveal the detail about the inner workings of such organizations to case researchers. Even when some detailed information is shared by the executives with case researchers, the former often have to seek the permission of the owners whether such information can be provided to case researchers as outsiders. If there are conditions of inter-family competition in certain business sectors, this problem of secrecy and hence inability of case researchers to gather detailed information becomes a serious limiting factor in developing quality field case studies involving private sector organizations. However, with the spread of management education and as the younger members of the family often get their management education in advanced industrial countries such as the U.S.A., there is a growing tendency for these organizations to open up and cooperate with case researchers. Still the general tendency in the case of both private and public sector organizations in smaller countries like Kuwait is to be willing to provide more detailed information about successful managerial practices rather than the failures and critical problems facing their respective organizations. Overall, one observes significant favorable changes taking place in the external environment which should facilitate the case research programs.

The problems of secrecy and unwillingness to share the details of business operations and problems become more intense in the case of small and medium sized organizations. At the same time, there is an acute need to develop good case studies involving the small and medium sized companies in these countries as this sector is expected to contribute significantly to the overall economic activity in the country. With the spread of globalization and importance of services industries in all countries including in smaller countries, the need for improving the competitiveness of small and medium sized organizations is increasing. To develop and implement appropriate programs aimed at the development of this sector, it becomes necessary to develop suitable field case studies involving this important sector of the economy.

To create more conducive external environment it behooves the case research programs to educate the various organizations in these countries, both large and small, about the benefits of case research to develop appropriate managerial skills on the part of the citizens of the country. Such a goal, in other words, requires the case research program contacting and informing the various organizations in the country about the macro and micro level benefits of case research.

Both internal and external case research developmental programs need to be undertaken simultaneously so that undesirable imbalances between the two can be avoided.

CASE METHOD OF PEDAGOGY: ENVIRONMENTAL HURDLES

In many parts of the world it was generally recognized that management education borrowed from the advanced industrial countries need to be effectively adapted to the unique socio-cultural and economic environmental forces of each country. While theories, concepts, tools and techniques are readily transferable from advanced countries, the adoption process to make them work in practice continues to be a major challenge in many parts of the world. This is particularly so in the case of adopting certain pedagogical methods such as case method of teaching. Although the importance of utilizing case method of pedagogy is obvious for effective transfer of management knowledge, unfortunately the case method of teaching business administration subjects is not always adopted in many countries including smaller countries like Kuwait. The main hurdles to effective use of case method of teaching are environmental. Some of these environmental challenges to the effective adoption of case method of pedagogy are discussed in this section.

First and foremost the educational philosophies of business schools vary from country to country. Especially in countries where European orientation to education in general exists, there is more emphasis on theoretical and conceptual rigor of knowledge imparted through traditional pedagogical tools such as lecture method rather than application and practice oriented case method of teaching. Second, management education in many countries, including in Kuwait, has not been fully recognized as professional educational field and business schools typically evolved from colleges of commerce with applied economics orientation. In many countries the development of other professional educational fields such as medicine and legal studies typically follow the same pedagogical methods of the industrially advanced countries with greater emphasis on practice and application with extensive use of case method of teaching. But the same cannot be said about management education even though such pedagogical adaptation is equally if not more important for effective transfer of management education from advanced countries to other countries. Hence, .it may be argued that in order to make case method of pedagogy an integral part of any business school, its relevance should explicitly recognized as a part of the mission statement of business schools.

Another major environmental problem to effective use of case method of pedagogy arises from the attitudes and educational philosophical orientation of business school faculties. First, the business faculty pedagogical orientations primarily depend upon the schools' overall educational philosophies, which were discussed earlier. Second, the disciplinary orientations of many business faculty members are more theoretically oriented rather than application oriented because of the diverse disciplines from which the business faculties are typically drawn. Although business faculties are expected to develop greater application orientation, many business faculty members do not achieve the necessary transformation from their theoretical orientation emanating from their original disciplines to the much needed application and practice orientation. This is often reflected in their pedagogical orientation as well. Many of them strongly believe in imparting rigorous theoretical and conceptual knowledge through traditional pedagogical tools such as lecture method etc.

Such philosophical and pedagogical orientations of business faculties need to be changed if case method of teaching has to take deep roots in any business school environment. The importance of case method teaching, needs to be emphasized as an institutional goal and policy. Second, appropriate faculty development programs to impart case method of pedagogy need to be developed and implemented. To inculcate a culture of case method of teaching in the institution, there will be a need to make a resource person available for faculty consulting and guidance in developing their skills in case method of teaching.

The third major environmental hurdle to implementing effective case method of pedagogy involves the students, their learning orientations and cultural inhabitations in adapting to innovative learning methods such as the case method. Students the world over typically would like to be passive learners with strong preference for receiving some well defined body of knowledge through instructors' lectures and other traditional pedagogical methods. The concept of active involved learning which implied in case method of learning is often alien to students in general. In addition the case method of learning shifts the onus of responsibility to developing certain analytical, integrative and interpersonal skills from the instructor to the students. Unless the students are properly oriented to case method of learning , the students do not feel that they are learning substantial knowledge. Hence, it becomes necessary that the students be properly oriented to the purposes, processes, challenges and complexities of case method of learning. In the absence of such orientation programs preceding the actual use of case method of teaching, the pedagogical tool may create greater dissatisfaction on the part of the students and may create a feeling of that they are being short changed in their educational experience.

The cultural orientations and inhibitions of students in different parts of the world also create interesting challenges to the process of making case method an effective pedagogical tool. In some societies and cultures open discussion and give and take type interactions are not only tolerated but also encouraged. In other societies and cultures such free exchange of opinions, ideas and arguments are inhibited because of cultural norms and values. This is especially the case when exchange of ideas, opinions and arguments involve students and teachers. In many cultures students are not expected to freely discuss various matters with their teachers. Students in such societies are expected to be passive receivers of knowledge from the teacher ever questioning the wisdom of the teacher. Under such cultural circumstances, it becomes a great challenge to effectively use case method of teaching. Given the expectations of students based on their cultural norms that they have to receive knowledge from the teachers, any deviation from such norm may create more dissatisfaction on the part of the students. Such a situation calls for more intensified case method of learning orientation programs. Similarly in some cultures a high premium is placed on "saving face" type of social behavior. In such cultures either party in a social exchange situation refrain from confronting and arguing with other persons because of the potential danger for hurt feelings for either party. In the same vein, in a group context, individuals do not like to be exposed to group scrutiny for fear of making mistakes and hence, suffering the humiliation of "loss of face". All these are cultural inhibiting factors on the part of students need to be carefully considered in using case method of teaching.

STRATEGIES FOR CASE RESEARCH AND TEACHING

Recognizing the internal and external challenges to the development of case research and teaching at the College, as mentioned earlier, the College took the bold action of instituting a separate administrative unit, Case Research and Teaching Unit (CRTU) headed by an experienced case researcher and teacher. Administratively the CRTU Director reports directly to the Director of the Center of Excellence in Management who in turn reports to the Dean. The Director of CRTU is supported by secretarial support and a research assistant. To achieve the goals and objectives of the CRTU, budgetary provisions have been made to implement the various programs of CRTU. The following were the major objectives of CRTU.

1. To aid, support and facilitate the case and research and teaching efforts of the academic staff of the College.
2. To disseminate pertinent information to the College academic staff about case research and teaching opportunities in the Kuwait organizational (public and private) environment and facilitate interaction between the College academic staff and the Kuwait organizational community.
3. To provide information to the College academic staff about various outlets (conferences, workshops, seminars, journals, textbooks etc.) for disseminating their case research and teaching outputs.
4. To develop and implement programs (seminars, workshops and lectures) aimed at stimulating case research and teaching among the academic staff of the College.
5. To initiate and sustain relations between the College academic staff and the various organizations in Kuwait and outside for the specific purpose of facilitating case development at the College.
6. To develop and maintain case research and teaching resources (books, journals, conference proceedings, newsletters of case research organizations, conference announcements etc.) especially aimed at case research and teaching development process at the College.
7. To encourage, facilitate and support collaborative case research mainly focusing on Kuwait organizational environment between the College academic staff and overseas universities' academicians.

In order to achieve the CRTU major objectives a set of academic and financial policies and procedures have been instituted. The purpose of the academic policies to ensure the quality of case research outputs through appropriate evaluation procedures. The major purpose of the financial policies is to ensure proper control over the financial disbursements to the academic staff for purposes of carrying out case research and teaching activities and also to provide financial incentives to the academic staff of the College who are active in case research and teaching.

The academic policies for evaluating completed case studies at the College may be summarized as below:

1. All significant case research and the outputs in the form of completed case studies and the accompanying teaching notes will be considered as significant research activity to enrich the indigenous teaching materials to be used in the College academic programs.
2. Significant case research should satisfy the following criteria:
    a) Should result in a completed case study along with a teaching note.
    b) The case study be based on field work, or secondary source data or a combination of both, involving an administrative situation in the context of public or private organizations in Kuwait or in the Gulf region.
    c) The case study be tested in the class room prior to finalization.
    d) The case study should be peer reviewed and for the peer review of completed studies and the accompanying teaching notes any or a combination of the following procedures may be used:
        (i) Internal peer review by the CRTU Committee of the College
        (ii) Presentation of the case study at a case research conference where case studies are selected through peer review process.
        (iii) Publication of the case and teaching note in a case research journal and/or a case book.
3. All the case studies, which satisfy the peer review criteria under 2(d) above will be published every year in the form of a research monograph by CRTU and will be disseminated to prominent public and private organizations in Kuwait.
4. Selected case studies and teaching notes completed by the academic staff of the college will be published in the College "Working Paper Series". The Case Research Peer Review Committee of the College will select the case studies based on their quality for inclusion in the "Working Paper

Series". the selected case studies and the teaching notes will be widely disseminated to other business schools in Arab countries.

5. Every year top three case studies competitively selected by the College "Case Research Peer Review Committee will be awarded appropriate prizes to be determined by the CRTU Advisory Committee and the academic staff involved in developing these case studies will be formally recognized by the College.

The financial policies and procedures are formulated for the purpose of financially supporting the case research by the College academic staff. The financial support in the form of grants is provided for meeting the field work expenses, for travel to case research and teaching conferences. At the beginning of every academic year the College faculty are invited to submit their case research grant proposals which will be evaluated by the CRTU Advisory Committee.

The Director of the CRTU plays a key role in implementing the CRTU policies and procedures. In addition, he/she organizes periodic faculty seminars to reorient the College faculty to case research and pedagogy. He/she will also be available as a resource person to provide help and guidance to individual faculty members interested in pursuing case research and teaching activities. The CRTU office maintains a resource center with case research and teaching related books, journals and conference proceedings. In order to enable the CRTU Director to effectively provide the needed leadership for case research and teaching development at the College, adequate time is released from his/her normal teaching/research responsibilities.

CONCLUSIONS AND RECOMMENDATIONS

The transfer of managerial knowledge and practices from industrially advanced countries to other emerging and developing economies continues to be a challenge for management education all over the world. The urgency for such effective transfer of management skills has intensified in recent times with globalization and the pressing need to impart greater competitiveness to organizations in each country. In this context, to improve the effectiveness of management education in many countries including Kuwait, the importance of developing and implementing a carefully thought out case research and teaching program becomes self evident. A systematic case research program and effective utilization of case method of pedagogy will significantly contribute to the process of adopting management theories and practices to the unique characteristics of each country. However, developing and implementing such an active case research and teaching programs are constrained by a number of internal and external environmental problems peculiar to each country context. In pursuing an active case research program many internal problems from the perspectives of business school faculties and external problems from the difficulties experienced in gathering field data for case studies exist with different degrees of intensity in different parts of the world. Similarly, in pursuing an active and effective case method of teaching programs, problems do arise from the perspectives of the educational and pedagogical philosophies and practices business faculties and socio-cultural characteristics of student populations in each country. To overcome such constraints and hurdles a systematic case research and teaching program is developed and it is currently being implemented at the College of Administrative Sciences at Kuwait University. As the case research and teaching programs are pursued vigorously in future it is hoped that appropriate indigenous case teaching materials will be generated and a culture of case method of teaching will be established at the College. These case research and teaching development programs are expected to vastly increase the effectiveness and relevance of the management education programs in Kuwait.

CHAPTER TWO

SOLVING A SHORTFALL IN EXECUTIVE EDUCATION: REAL TIME CASE METHOD TEACHING

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Abstract

Executive education by its very nature is designed to prepare the best performers in any organization for positions of higher responsibility in the organization. The path to higher levels of responsibility in an organization is usually as diverse as the backgrounds of the people in the organization. It becomes the challenge to those who develop executive education programs to take these promising executives and develop a program that will place them on an even footing in understanding the complexities of the strategic levels of their respective organization. In developing these programs, it is also desirable that the diversity of skills and knowledge that these people usually bring with them are used. This paper addresses the shortfalls in moving an educationally diverse group of individuals up the organization and ways to overcome these shortfalls.

KEYWORDS: Executive education, strategic leadership, strategic management, conceptual thinking, and case method teaching.

INTRODUCTION

The traditional processes for developing managers and leaders through *management development* programs, has evolved to more upbeat programs under the rubric of what is called *executive education* (Vicere and Fulmer, 1997). The switch in terms is more than just a play on words. Vicere and Fulmer relate that the switch moves the concept of development from the more bureaucratic management realm to the more desirable world of leadership. Although this paper is not about the differences between the concepts of management and leadership, these concepts certainly play a major influence in developing programs for executives as they move up the organization, especially in the environment of the twenty-first century. As organizations strive to prepare their managers and leaders for strategic challenges, they need to find ways to properly educate these people who normally come from a diverse experiential and formal education background. This paper is about the way organizations try to address this problem.

First, it should be noted that the word educate is used purposely to distinguish it from training programs. Review of the literature reveals that often these terms are interchanged. For the purpose of this paper, training programs are those programs that are, by their very nature, designed to transmit techniques and skills essential for middle and senior managers. The skills in theses programs tend to be temporal often requiring updates as the skill base evolves or changes over time. Education on the other hand strives to focus on conceptual thinking in order to determine tendencies and patterns rather than the certainties of training-based program (Vicere and Fulmer, 1997). Lastly, also for the purpose of this paper, "executive" refers to those individuals who operate at the strategic level of an organization. With these distinctions in hand, the challenges of the twenty-first century seem best addressed by executive education programs.

A check with the Internet under the search words *executive education* reflects a host of organizations ready to customize an executive education program for one's organization. Additionally, a review of the programs offered by traditional higher education institutions in the United States, reveals a rise in the number of executive education programs as these institutions also react to the demand for executive education. To control the entrance into these executive education graduate programs, the requirements remain somewhat traditional; namely, an acceptable grade point average from an accredited institution as well as a minimum grade on such test as the Graduate Record Examination (GRE) or the Grade Management Achievement Test (GMAT). When one looks at non-traditional executive education programs, however, the obvious question is "What are the controls used to place people in these type of programs?" The answer usually is success within the organization – "success" being defined by the respective organization. To address the reasons why organizations other than the traditional learning institutions establish executive education programs, we can look at the work of Anthony J. Frisina, President, Executive Knowledge Works.

Fresina (1997) in his review of corporate universities executive education programs outlines three prototype models. They are:

Prototype I

To reinforce and perpetuate the current corporate paradigm – the present winning formula.

Prototype II

To manage change from the current operating mode to a mode in line with the strategic vision of the organization.

Prototype III

To drive and shape a new context of the organization. This prototype seems to focus on a transformational move for the organization.

Whether one buys into Frisina's models or not, he does point out the existence of executive education designed to enhance the thinking abilities of promising executives within a corporation. The point here is that in addition to the many traditional schools that offer executive education, corporations also find it necessary to provide a learning environment that will better prepare their young executives for future challenges within their corporation. It is beyond the scope of this paper to analyze the success of such programs, but rather to address what are the problems inherent in such programs.

PROBLEMS INHERENT TO EXECUTIVE EDUCATION PROGRAMS

As stated above, inherent to traditional institutions of learning, are processes that control the entrance into executive education programs. Thus a student not only must have the requisite degree, but the necessary foundational courses needed to understand and appreciate the subtitles of an executive-level course that usually is taught at the graduate level of education. In this way, basic concepts in management, psychology and sociology have been addressed somewhere in the student's past. For the same reasons that universities require foundational courses before students move to higher level courses, the same should be true for executive education courses.

Zemke and Zemke (1995) caution us to not get too carried away with the traditional teaching methodology that is common to pedagogical ways of teaching. Many of the executive education models appear to be built around the adult learning model often referred to as andragogical learning. Learning that is marked by self-direction of the learner, use of the learner's experience as a resource, connectivity between learning and "real life" events, and lastly, pragmatic learning. Although the move toward adult learning seems logical and warranted in executive education, the need to have some mastery over content also appears to be an essential ingredient.

As an example, we can look at the practice of Executive Knowledge Works (EKW) and see how they apply their executive education formula. In their case study on Knight-Ridder, they use a four-step process (Larson, 1994). The process includes:

- Outward Bound Session – designed to provide a leveling experience among the company executives. "By the time they finish those two days, they have a different sense of one another" (p.3).
- Interactive Session – focus on Knight Ridder's traditional and emerging values and to reexamine their own leadership styles. This session ends with facilitation by an EKW consultant who pushes the envelope of the students understanding the dynamics of what they went through and to challenge their lack of knowledge about the factors affecting their environment.
- Real Life Case Study – forces the students to address real-world issues within the context of another organization. The point here is that the students are not only interactive with individuals from another organization, but they also learn about other conceptual models from which to view an organization's
- environment. This particular step will be addressed later on in the paper as a critical solution in shoring up one of the shortfalls in executive education.
- Content Expert Session – Another critical event is to bring in experts who can provide a formal knowledge base to what the students have experienced as well as laying flesh on the conceptual models that they were previously given.
- Case Study of Client's World – It is in this context that the students are thrust into a case study of their own world with a new "skills tool kit" from the previous sessions.

It is the second last phase that addresses a key shortfall, namely the possible lack of a pertinent formal education base of the executive students. This statement is not designed to set up an elitism as to what educational foundation is best, but rather an attempt to understand the baseline of knowledge that is brought to executive education by the students. Remember students were selected for the executive education course based on their success in their respective organization. Thus the likelihood of the students having an educational background that will understand the subtleties of strategic issues may be minimal.

Through testimony of many senior executives in a variety of organizations, the road up an organization is not necessarily vested in one particular profile of an individual. Physical demeanor may be an attribute in sports, but less in other types of organizations. Additionally, the formal education path is just as slippery. A promising senior executive is just as likely to come from a history, natural science or education major instead of the business school route. This does not mean that one can dismiss the lessons learned from the business school curriculum. What it does mean, however, is that regardless of their formal education background, each promising executive has demonstrated excellence at the operational level of an organization and has been judged to have potential for positions of higher responsibilities.

It is at this point, that critical and conceptual thinking are at a premium in the executive leadership process. Zaccaro (1996) confirms this in his survey of leadership research. He suggests that there are four major conceptual perspectives of executive leadership; namely, conceptual complexity, behavioral complexity, strategic decisionmaking, and visionary or inspirational leadership. Referring back to the EKW's process, it can now be seen why they have designed their program to first breakdown the experiences of its students and reformat them into a conceptual framework that will serve them in re-addressing issues in the own world -- in Knight-Ridder's case, the media world.

How did EKW bridge the educational shortfall gaps of some of their students? The answer is that they brought in content experts in order to fill in the formal educational gaps. What case did they finally work on to use these newly acquired concepts? The answer is an organization that they were most familiar with, the media industry. The point here is that students with educational gaps in their formal education had a better chance of understanding the nuances of these concepts relative to their own industry. This familiar environment becomes an enabling setting for them to understand new strategic concepts.

THE UNITED STATES ARMY WAR COLLEGE CASE STUDY

The executive education for the United States military is conducted at five senior service colleges. One of these institutions is the United States Army War College (USAWC) which is located in Carlisle, Pennsylvania. The mission of the USAWC is:

> To prepare selected military, civilian, and international leaders to assume strategic responsibilities in military and national security organizations; to educate students about the employment of the U.S. Army as a unified, joint, or multinational force in support of the national military strategy; to research operational and strategic issues; and conduct outreach programs that benefit USAWC, the U.S. Army and and the Nation. (Program for Joint Education, Academic Year 2000, p.8)

As is shown in Table 1., the profile of the USAWC student continues to be the same as that reported by Murphy, 1998. Specifically, the student body is comprised of approximately 320 students from various assignments throughout the U.S. military organizations (Active, National Guard and Reserve units). Additionally, the international students are senior officers, colonel or general rank, from forty different countries around the world.

TABLE 1. USAWC AVERAGE STUDENT PROFILE

Age	44 years
Years of Service	22 years
Education	Masters* (80%)
Past Responsibilities	
# of people managed	600-1000
Size of budget	$1-500m (est)

* **Note:** Education data refers to U.S. students only. International officers may or may not have a baccalaureate degree.

The student body is divided into twenty groups called seminars. The students stay in this configuration for the first half of the school year. During this time period, each seminar addresses specified topics through a series of four core courses. This part of the curriculum is designed to cover a wide range of subjects in order to give maximum breadth to the issues that will involve executives at the strategic level of the military and the respective governments of the students.

In some sense the sessions during this phase are designed to get the students to a similar point in their understanding of the issues facing strategic leaders and managers. It is here where the USAWC recognizes that although students have been in the military or working for the government for over twenty years, each has different educational and work experiences. Thus faculty are challenged to facilitate the various lessons in such a way to help each students fill in the possible shortfalls in their formal education and experiences. In essence as EKW did with the Knight-Ridder sessions discussed earlier, the USAWC finds it necessary to devise a curriculum mechanism to "level the playing field of its students." That is, to give them a common baseline of understanding as to dialogue about the complexities of strategic executive issues.

During the second half of the USAWC academic year, the curriculum is comprised of a series of graduate-level electives. It is important during these learning timeframes, that the faculty continue to build the bridge between the objectives of these courses and any shortfalls that students may have because of their lack of formal education. To determine the validity of this concern, a sample survey was conducted at the USAWC during the Academic Year 2000.

The survey was primarily given to students taking a course in Strategic Management. Although this course is similar to the capstone course of Schools of Business in the United States, some modifications had to be made do to the limited business educational background of the students. In fact, of an enrollment of twenty-one students, one student had a doctorate in a social science, six students had a masters degree in management, two U.S. students never had a management course, four had a management course over 15-20 years ago and the remaining eight students were international officers. Of the international officers, two had management degrees, three never had taken a management course and two had no baccalaureate degree but rather extensive military education.

When responding to a question as to obstacles that may have hindered their learning, the answers were in line with their formal education. Review of Table 2 reveals that not only was their lack of management education a problem, but in the case of the international officers, the culture and language became a barrier. It should be noted that international students are required to pass a certain level of English proficiency before they are allowed to enter one of the U.S. Senior Service Colleges. Although they can normally handle normal English conversation, it was the technical concepts in management that became a problem to them.

It should be added that the international students were not the only ones understanding the subtleties of the management terminology. U.S. military officers with limited management education were also having difficulties.

TABLE 2. LEARNING OBSATCLES IN EXECUTIVE EDUCATION

Obstacle	Responses
Lack of Management Education	2
Years Since Management Course	4
Lack of Management Experience	3
Culture Differences	4
Language Difficulties	1
No Problems	7

A solution to this problem was to use military organizations to teach strategic management concepts. As is the case in a School of Business capstone course, strategic management courses (also called Business Policy), use of the case method approach is the norm. This was to be the case in the USAWC strategic management course -- not just any case, but rather cases involving military organizations.

For School Year 2000, the cases used involved the strategic plans and planning process of three organizations, the USAWC itself, the U.S. Army North Atlantic Engineer Division (NAD)and lastly Harley Davidson, Inc. In each case the students had interviews with or presentations from individuals from each of the organizations. In the case of Harley Davidson, Inc., it involved a tour of their York plant followed by a meeting with one of their managers. For the USAWC, it entailed surveys with students, faculty and administrators including the commandant and the strategic planners for the College.

Although the USAWC and NAD are not typical military organizations, the intent is to have the students understand the strategic management concepts discussed in class through their knowledge of military organizations. Thus it is not just doing case studies but case studies where the students have intimate knowledge of the organization, which aids greatly in bridging them to the learning objectives of the course and the subsequent terminology inherent to strategic management.

CONCLUDING COMMENTS

Executive education by its very nature is designed to prepare the most promising middle managers for increasing responsibilities at the higher levels of management of their respective organization, usually the strategic level. Review of the literature reveals that there is no formula to get to the executive leadership level of an organization (Hughes, Ginnett and Curphy, 1999; Zaccaro, 1996; Gardner, 1995). As a result, executive education programs need to find a balance between the potential shown by these promising executives and the diversity of their formal education.

This paper is certainly not taking the position that one cannot make up the lack of a formal course through outside readings, attendance at conferences or through introspection on one's experiences. What this paper is pointing out is the need to stay in touch with Bloom's (1956) taxonomy of learning when developing an executive education program.

Bloom in his six levels of learning recognizes that to gain competence at the higher thinking skills, one needs to have a degree of confidence at the more basic learning skills, namely, knowledge and comprehension. It is especially noteworthy in the comprehension level that the skill is demonstrated by being able to translate the knowledge that one has acquired to the context of the situation. Invariably those chosen for the executive level of management have demonstrated their expert knowledge to succeed at the lower levels of the organization but whether they are able to place that expertise into the context of the larger organization is the question. Just as important is to ask whether they have the conceptual ability to frame the context. It is for these reasons that the use of cases within the context of the student's organization becomes very useful. To some degree, they will certainly know the general situation of their organization and to some extent the "players" and the group dynamics that is generated in moving the organization to a viable future.

It probably is a generally accepted axiom that there is little time to develop a building-block executive education system as is experienced in the normal university setting. Thus executive education students need to be given opportunities to bridge this shortfall through the use of innovative teaching techniques. Using cases that are very familiar with the students is a way to bridge this gap. Thus, these cases can be used to enhance the conceptual framework of the students as well as providing an opportunity for the teacher to formalize some of the terms, concepts and processes that the students have already used at the operational level of the organization. In essence, they may not have understood the strategic implications of the action or process they were doing at the lower level, but they will at least know the environment and context that the concepts sprang from.

In the final analysis, one can say that the real purpose of executive education is to prepare students to have a reasonable chance to achieve Bloom's highest level of cognitive thinking namely, the evaluation stage -- more specifically, evaluating the strategic direction and options of one's organization. Utilizing cases from the student's own organizational setting seems to give a reasonable chance of guiding executive students to this level of cognition.

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INNOVATIVE RESOURCES AND STRATEGIES FOR APPLYING CASES TO TEACHER EDUCATION

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Abstract

This interactive book session will highlight the work of 15 teacher educators featured in Sudzina's *Case Study Applications for Teacher Education: Cases of Teaching and Learning in the Content Areas* [Allyn & Bacon, 1999a]. Cases are drawn from case texts, professor and teacher-written narratives, short stories and novels, videos, "live cases," stories in the news, cases on the World Wide Web, and from students' own dilemmas in field placements and student teaching. Strategies and resources shared will be both generic and specific. Content areas addressed include: early childhood, educational psychology, elementary language arts, secondary English, multicultural education, special education, ethics, computer applications, and school administration.

KEYWORDS: teacher education, innovative strategies, content-specific cases, case resources, case applications

INTRODUCTION

Case-based teaching has captured the imagination of the education community. Case studies, those "slices of life" that illustrate a myriad of dilemmas from moral issues to classroom management, are being increasingly integrated into teacher preparation programs. Although not a new idea in education, the explosion of case books and resources since 1988 chronicling behavioral, content area, and contemporary classroom dilemmas suggests that using cases fulfills a need in the way we prepare teachers.

Case studies have recently been included in the national teacher *Praxis II* exam [Educational Testing Service, 1999] as a means of assessing students' pedagogical decision-making for initial teacher certification. They are also increasingly being integrated in professional development, inservice, and graduate teacher education programs. It appears that case use in teacher education will only continue to grow.

Research indicates that teaching with cases can offer teacher educators a variety of opportunities to expand and extend their teaching skills, problem-solving abilities, and grasp of contemporary issues in classrooms today. Case discussions also offer a window into preservice, inservice, or graduate students' experiences, opinions, perceptions, or misconceptions of educational dilemmas. The benefits for students are also multiple: the development of higher-order thinking skills, and advanced research, problem-solving, writing, and presentation skills. Students also report increased satisfaction with their grasp of issues and the range of strategies explored to cope with life in schools. That all sounds fine. So, what's the big deal about teaching with cases? Don't cases teach themselves? Aren't they intuitively engaging to students? Many myths seem to abound about teaching with cases, particularly as they relate to applying cases to specific content areas and the goals of instruction.

A TEXT AND SESSION ABOUT CASE APPLICATIONS AND CASE PRACTITIONERS

THE UNIQUENESS OF CASE TEACHING

My motivation for writing this book is simply that this is the book about teaching with cases that I have most wanted to read - the "missing link" between case texts and case research - the stories of those individuals who teach with cases. I've always been interested in what motivates individuals: *why* people do *what* they do and *how* they do it. This natural curiosity extends itself to case applications and case practitioners: who are the individuals who teach well with cases, what are their teaching experiences, why did they decide to use cases, what works and *doesn't* work in their classes, and what differences, if any, are exhibited by their students after using cases? In the past, simply hearing about someone's success stories and research hasn't been much help when I found myself at an impasse with a new teaching or counseling strategy. I wanted, and needed, to know more.

That is why this book session is different. Not only will you be introduced to 15 talented teacher educators through their photos and biographies, but you will share their personal stories of successes, shortcomings, and growing pains in learning to teach with cases in their particular content areas and teacher education programs. I am convinced that our experiences and choices with any teaching strategy are greatly influenced by who we are: our previous histories, teaching assignments, and experiences being a student, a teacher, an administrator, a parent, or all of the above. Because case outcomes are also influenced by the interactions and perspectives of the key players, there appears to be no "golden formula" that applies to all situations. However, there are strategies for teaching with cases that are more and less successful.

CASE APPLICATIONS AND RESOURCES

In essence, this book aspires to address "everything you wanted to know about case-based teaching but were afraid (or didn't know) to ask." Although none of the authors would claim to know all the answers about teaching with cases, we've pooled our hard-won wisdom. And, the cumulative effect is stunning! Perhaps the biggest surprise is that teaching with cases has made us better listeners and better teachers.

What you will discover in this session is that teaching with cases has been a challenging personal and professional journey for many of these teacher educators - and a journey that has been worth the trip - for them and their students. Not only do they share their ideas and examples, but also their assignments, cases they have written, case texts, syllabi, assessment instruments, and resources. Much of this ancillary information can be found on our book Website: *http://www.abacon.com/sudzina/*.

THE FOCUS OF THIS BOOK AND SESSION

The idea for this book and session grew out of my own search for how to teach effectively with cases [see, Sudzina, 1993, 1994, 1995, 1997, 1999c, 1999d; Sudzina & Kilbane, 1992, 1994]. As you will find in the chapters, many of the authors, including myself, were introduced to the case method at a conference or workshop. We were drawn to this idea as a way to enhance student learning and class participation, and to enliven our teaching as well. Generic case texts and guidelines, and even workshop leaders, can sometimes leave the impression that there is a straight forward formula for teaching with cases and that's really all you need to know. As you will discover, for most of us, that was just the beginning of learning to use cases effectively in our teaching.

One Approach Doesn't Fit All

This point became even clearer to me, when, after presenting my own research about teaching with cases at conferences, I was often approached by colleagues eager to begin teaching with cases who just wanted the essential facts. I found that I wasn't able to give them a ten minute explanation but needed to know something about their course and students. By the time I was finished asking nearly a dozen or so questions (see checklist, chapter 3) about their particular teaching situation, discouragement had usually set in. And, I could empathize. So much of case teaching is trial and error learning and influenced by such things as time, case content, class size, room arrangement, course goals and assignments, and whether the students were preservice, graduate, or inservice teachers. One approach doesn't fit all.

Cases Promote Professional Development

Part of the magic about teaching with cases is that it is, by nature, interdisciplinary - just like the classroom - and life. No problem stands in isolation; it always bumps up against the social, emotional, contextual, intellectual, motivational, and even political, agendas of the moment. Case issues and stories allow teacher educators to talk across content areas and levels of expertise with ease and familiarity with one another as they focus on a shared problem. However, many of us have observed over the years that even when teachers use similar problem-solving models, or even the same cases, courses and case discussions can look very different. Although the content of the course drives the assignments and applications, the involvement of the participants and skill of the instructor as facilitator make a difference in the richness and quality of the discussions and the kinds of new learnings that occurs. Our goal is to help make the transition to teaching with cases smoother and more successful for you.

TEACHING WITH CASES

The contributors to this volume present a wealth of experiences both as teacher educators and innovators in case-method teaching. They are in different stages of their careers, from several different geographic areas, and have adapted their teaching strategies with cases to fit their students and course goals. Cases are drawn from a variety of sources. Several of the contributors have authored or co-authored case study texts in their content areas. Several other contributors share their unpublished cases in their chapters. Still others offer samples of student case writing and case analyses that they use as part of their course content. All share their own stories of teaching and learning with cases.

GETTING READY TO TEACH WITH CASES

The first author you will meet is Hendrik Gidenose, Dean Emeritus at the University of Cincinnati. He discusses what a case is and what characterizes case instruction. This chapter succinctly captures the broad ideas embedded in case learning and enumerates five dimensions in case instruction: preparation, instruction, assessment, training, and resources.

In the next chapter, I outline issues some practical issues to consider when preparing to teach with cases. I discuss myths of case-based teaching and then offer some guidelines and a checklist of items to consider when teaching with cases [see, Sudzina, 1999b].

TEACHING WITH CASES IN THE CONTENT AREAS

This section is the heart of this text and presents 11 specific examples of teaching and learning with cases in the content areas:

- Amelia Klein from Wheelock College leads us off with a charming account of her early teaching experiences and their relationship to her current use of cases in early childhood teacher education programs. She also discusses using "live cases," and establishing collaborative communities among colleagues at her own institution, and internationally, for case-based teaching and professional development.
- Jim Allen, from the College of St. Rose and a fellow educational psychologist, offers us a spirited chapter of case "lessons" learned. Allen traces his journey from a neophyte to an experienced case facilitator with stops along the way to mentor students to national invitational

team case competitions. Also included in this chapter are his student study guides for case analysis and case assessment.

- Debbie Libby teaches elementary language arts at Slippery Rock State University. Her chapter includes suggestions and questions to facilitate case discussion, as well as a list of case topics that she has written about to compliment the primary language arts text. Libby concludes with excerpts from her students' writing that reflect the positive changes in their responses to cases dilemmas from the beginning to the end of the semester.
- Steve Koziol, Brad Minnick, and Kim Riddell chronicle the layered effect of using cases applications from a casebook, with student-written cases, to discuss student teaching dilemmas in the secondary English education program at the University of Pittsburgh. Their chapter also includes a case typography for selecting and using casebook cases, a case preparation guide for students, and The Pittsburgh Reflection about Teaching Scale.
- Joanne Herbert of the University of Virginia writes about her experiences videotaping cases of classroom interactions and the effects these videos had on her students and her teaching. She also provides an example of a teaching note and critical perspectives that were developed to accompany a series of videocases. Herbert concludes by describing a Web-based course that she co-designed using multimedia cases of contemporary classroom issues, the content of which is applicable to preservice, inservice and graduate teacher preparation programs.
- Todd Kent, now at Princeton University, was a doctoral student at the University of Virginia when the first draft of this chapter was written. He has been a innovator in supporting and transforming teaching and learning with cases through multimedia, Internet, Web, and CU-SeeMe technology. Kent describes his involvement with virtual case competitions, the use of telecommunications to enhance distance learning, and the technical and design issues associated with case-based courses on the World Wide Web.
- Tom Peacock at the University of Minnesota-Duluth has been greatly influenced by his Anishinabe heritage. His chapter describes the evolution of a multicultural studies course he teaches on the American Indian pupil to include cases as story. Peacock has melded his knowledge of the rich Anishinabe storytelling tradition to create a cycle of cases that illuminate tribal culture, traditions, and values, and their implications for schools and the students who attend them.
- Mark Mostert from Moorhead State shares his experiences as a undergraduate student in South Africa through the roles of teacher, principal, and associate professor in the United States. He suggests that personal experiences can have a profound effect on professional perspectives, judgments, and actions, and draws cases from a variety of sources, including his own text and a co-authored case text, in a capstone course on consultation and collaboration in special education.
- Bill Losito from the University of Dayton uses examples from classic and contemporary novels and short stories to invite critical engagement in moral issues as he and his students discuss the complexity of professional ethical decision-making in this graduate-level course. Losito also presents a model for a moral view as well as criteria for objective reasoning and includes a case that he has written about an ethical reward system in an urban school.
- Bill Hunter teaches on the "hard" side of education at the University of Calgary. - statistics and technology - and his sense of humor and gentle irreverence are infectious. He recounts his serendipitous exposure to cases through a case competition and the subsequent integration of cases into all courses he now teaches. In this chapter he presents a case he has written for his computer applications course and includes his course Website.
- Ted Kowalski at Ball State University is a prolific case writer, the author and co-author of several case study texts, and an insightful case facilitator. He discusses how and why he uses cases in his doctoral seminar in school administration and offers excerpts from student evaluations to illustrate the power and value of case analysis for future administrators.

The final chapter is again by Hendrik Gideonse who shares his own story of becoming acquainted with case-based instruction. Gideonse then draws together the lessons learned in teaching with cases in the preceding chapters. With keen observation and insight he discusses both the positive and problematic issues in teaching with cases. He also offers some suggestions of his own, based on his years of facilitating cases in student teaching seminars.

A FINAL THOUGHT ABOUT TEACHING WITH CASES

Over the years, I've come to realize that just as there are many excellent ways to teach, there are many excellent ways to teach with cases. We know that all excellent teachers do not look, act, think, or teach in the same way. However, we can observe the results of excellent teaching in the classroom by the quality of students' involvement and participation, knowledge of content, skills in analysis, reasoning, and research, as well as their written and oral presentations. Teaching is a craft that is ultimately learned by doing, and learned more effectively with constructive feedback and reflection. This book and session are designed to give you a taste of what other teacher educators have experienced when teaching with cases and to "mentor" you as you embark on your own personal and professional journey with this exciting pedagogy.

SESSION FORMAT

The author will serve as session organizer and facilitator [see, Sudzina, 1999c, 1999d]. The format of the session will be interactive and informal, encouraging participation from the audience. Seating will be arranged to facilitate discussion. Participants teaching in similar content areas will have the opportunity to share ideas and resources and to form networks. It is hoped that several of the chapter authors, [Allen, 1999; Klein, 1999; Kowalski, 1999] who have been active in WACRA, [see, Allen, 1994; Klein, 1992, 1995; Sudzina, Kowalski & Weaver, 1994] will be able to join us and lead the discussion in their content area. All participants are encouraged to contribute their ideas and feedback to this session. Our goal is to continue to promote excellence in case-based teaching and to share our knowledge and wisdom. New resources and references gleaned from this session will be added to the text Website [see, Sudzina, 1999b].

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MENTORING IN THE ACADEMY: A CASE STUDY OF COLLABORATION AND INNOVATION

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Abstract

The use of an innovative structure and process within the context of revising higher education curricula advances the pedagogical conceptual frameworks in higher education. Recognizing the resistance to change in the higher education community, it is imperative that unique and creative pedagogy be utilized in implementing academic leadership. The use of creative, interdisciplinary, cross-cultural, critically reflective, and culturally responsive collaborative mentoring (teaching and learning) will facilitate an understanding of the dynamics of organizational patterns and relationships in higher education. These innovative mentoring (teaching and learning) strategies can serve as a model for university curriculum revision, faculty development, and institutional change. The focus of this approach is interactive, problem-solving, and grounded in fostering critical thinking, self-reflection, and internal recognition of what it means to institute enduring innovations in curricular revision, faculty development, and institutional change. This article presents a framework for a multifaceted, creative, interactive, faculty-centered, constructivist, critically reflective, and culturally responsive case study for the teaching of innovative approaches in higher education.

INTRODUCTION

The creation of an interdisciplinary, cross-cultural, international consortium moves beyond the patterns of how institutions of higher education work in terms of organizational life. Both the individual participants and the institutions involved needed to be cognizant of the complexities of innovation and change [Hope & Rendon, 1996]. This consortium's complexity necessitated the implementation of new patterns and relationships which continuously evolved during the planning, implementation, and evaluation stages. Administrators and participants searched for the conditions and dynamics that influence faculty to participate in the process of change and discovery and the creation of new patterns. To paraphrase Barbara Curry [1992] from her work *Instituting Enduring Innovations: Achieving Continuity of Change in Higher Education*, how faculty bring about change in ways so basic as to influence the culture, which serves as the basis upon which they construct their identities as part of an academic program and/or university community is critical to the study of complex innovative practices.

The use of an innovative, collaborative mentoring structure and process within the context of revising higher education curricula advances the pedagogical conceptual frameworks in higher education. Recognizing the resistance to change in the higher education community [Damrosch, 1995], it is imperative that unique and creative pedagogy be utilized. The use of creative, interdisciplinary, cross-cultural, critically reflective, and culturally responsive teaching and learning will facilitate an understanding of the dynamics of organizational patterns and relationships in higher education. These innovative teaching and learning strategies used in collaborative mentoring between higher education faculty can serve as a model for university curriculum revision, faculty development, and institutional change [Baiocco & DeWaters, 1998]. This approach is interactive, problem-solving, and grounded in fostering critical thinking, self-reflection, and internal recognition of what it means to institute enduring innovations. This article presents a framework for a multifaceted, creative, interactive, interdisciplinary, faculty-centered, constructivist, critically reflective, and culturally responsive case study for the teaching of collaboration in higher education. The faculty development which occurred as an outcome of the interaction patterns and activities utilized during the curricular revision process at both participating institutions in the U.S. and Caribbean is the main focus of this article. How the faculty related to one another and the types of activities generated by the Consortium resulted in a multicultural approach to collaboration in cross-cultural settings between and within both universities' faculty and administrators. We will also identify and document specific structures and strategies which faculty developed and implemented in mentoring one another for the diversity of roles and tasks needed in a cross-cultural, interdisciplinary, international consortium.

CASE DESCRIPTION

The *Consortium for Undergraduate Studies on Latin America and the Caribbean* was developed through the collaboration of two institutions of higher education actively involved in the process of curricular revision, faculty development, and institutional planning. The participating universities were the University at Albany (UA), State University of New York (SUNY) and the Universidad del Sagrado Corazon (USC) in Puerto Rico. The Consortium was funded by the United States Office of Education (Title VI) for two years (1993-95). The major goal of the Consortium was to expand and strengthen the undergraduate curriculum at two institutions; one a comprehensive public research institution in New York State (the University at Albany, SUNY), and the other, a private, teaching institution in Puerto Rico (Universidad del Sagrado Corazón). The project focussed on developing a minor in Latin American Studies at the Universidad del Sagrado Corazón (USC) and expanding the already existing Latin American Studies Department curricula at the University at Albany, (UA).

Participant institutions chose to collaborate on this international consortium based on their common interest in the development of curriculum for Latin American Studies which is reflective of the realities of the Latin American experience emphasizing the Caribbean and the Latino/a experience in the United States. In order to accomplish this goal, the institutions proposed collaboration across two sites for the purpose of conducting a number of activities which resulted in fostering intellectual exchange, networking, and resource/information sharing as a means of capacity-building within their respective universities. The activities centered around the Consortium's major objectives of curriculum design/revision, faculty development, and institutional planning.

The universities contrast one another in type of institution, one being a research, doctoral granting university and the other a comprehensive teaching university. The former is a public, secular institution and the later a private catholic institution. Each university is structured differently in terms of schools, departments, and programs. Among the greatest differences are the professional expectations placed on the faculty for such things as scholarship, seeking outside funding, professional development, and providing professional services to students and clients. There is also great discrepancy in the faculty work load of hours spent on teaching, research, and service, including items such as scheduled office hours, academic advising, and preparation for teaching.

INNOVATIVE LEARNING PARTNERSHIPS

While accomplishing program objectives, the participants' interaction patterns evolved into collaborative relationships which generated cooperative, cross-cultural, and multicultural approaches to mentoring for diversity. Thus, they tested the efficacy of this approach for faculty development in institutions of higher education. The mentorship relationships were comprised of faculty from a variety of departments, disciplines, and professional experiences and personal worldviews. According to Rodríguez [1995] "mentoring in a diverse society is ambitious and demanding; requiring knowledge, skills, openness, fairness, discipline, commitment, and courage" [p.69]. Collaborative, multicultural mentoring examines the value system, norms, goals, academic content, operating procedures, and outcomes of the institution. How much more demanding and courageous then, must a collaborative, cross-cultural, interdisciplinary, international mentoring initiative be?

Addressing faculty development through collaborative mentoring has critical implications for the inclusion of multiple perspectives within institutions of higher education. A collaborative multicultural approach to mentoring is a culturally responsive manner in which to expand and strengthen undergraduate curriculum, faculty development, and institutional planning. The traditional mentoring model has been hierarchial in nature and attempts to facilitate individual access into the organization, profession, and/or discipline by acculturating those with less experience, knowledge and power into the world and worldview of those in higher status positions. It has been a top down model of initiation. However, we are introducing an example where the mentoring process was truly collaborative, a sharing among peers and colleagues. A review of the literature in the fields of higher education, business management, organizational behavior, and psychology reveal an increase in attention to mentoring initiatives, including non-hierarchical forms. Merriam [1983] proposed that "the phenomenon of mentoring is not clearly conceptualized...having different meanings in different contexts"[p. 169]. There continues to be great diversity within the spectrum of mentoring initiatives and delivery modes [Jacobi, 1991; Johnson & Sullivan, 1995]. The meaning of the term diversity goes beyond the variety of programs found by Jacobi, to philosophical typologies of mentoring such as traditional hierarchical models which are in direct contrast to collaborative multicultural approaches utilized by the members of the UA-USC Consortium. These variations of mentoring are both conceptual and programmatic and most often context specific. The tailoring of programs to specific institutional goals and participant needs as well as the vast variety of mentoring approaches nationwide, have resulted in the lack of a systematic evaluation and replication of different mentoring initiatives. This is especially evident in cross-cultural research on mentoring.

An enhanced view of mentorships is to conceptualize them as "learning partnerships between two or more individuals [and institutions] who wish to share or develop a mutual interest" [Carruthers, 1993, p. 9]. According to Bey [1995] as collaborative relationships "mentorships magnify teacher deliberations on educational actions and issues related to theory, research, and practice" [p. 12]. This type of mentoring combined with a multicultural approach introduces new possibilities into the faculty development process. Arredondo, et. al [1993] define multiculturalism "as a broad-based construct that not only is relevant to all cultural groups but also respects the complexity of all people based on their personal dimensions of identity" [p. 2]. This depth of respect scaffolds a collaborative approach to working with others. The collaborative, multicultural approach to mentoring embodies a reasonable base of shared values while allowing for diversity of ideas. A collaborative, multicultural approach fosters caring, trust, and teamwork. Openness and fair play are also important elements of this collaboration.

ISSUES IN COLLABORATIVE MULTICULTURAL MENTORING

Self-Assesssment

Participants in collaborative multicultural approaches to mentoring must be open to exploring and critiquing their own personal and professional beliefs, knowledge, and practice. Higher education faculty are usually accustomed to performing alone in the "privacy" of their own classrooms and before the scrutiny of much younger, less knowledgeable, and less powerful non-peers. "For many faculty recruited as mentors, the classroom is an uncritical and unexamined domain of assumed professional competence" [Cohen,1995:17].

The participants in our study were open to the kinds of transitions, reflective orientation, and developmental perspectives necessary to learn from and work with colleagues for mutual growth in the areas of research, curriculum and faculty development and institutional planning.

Flexibility and Fluidity

Multicultural mentoring is a process that responds to the diversity of the participants. By the nature of this process, the participants must be able and willing to function as collaborators by employing a developmental perspective. This attitude and viewpoint assumes that individuals and institutions evolve as a result of passing through dynamic stages of development. There is a belief that through this process one gains knowledge, skills, and values which transform who we are and what we are capable of accomplishing. "Acquisition of skill, possession of knowledge, attainment of culture are not ends: they are marks of growth and a means to its continuing" [Dewey, 1939, p.628]. Thus, there are not any set scripts nor can there be.

No one has the "right" way or the best practice for multicultural mentoring. Participants in a collaborative multicultural model of mentoring are open to continued growth and committed to life-long learning. Therefore, the collaborative, multicultural mentoring relationship evolves to meet the specific needs and goals of the context and persons involved.

The participants in our study did not exhibit pre-conceived, static, or assimilationist goals, characteristic of a monocultural perspective. They presented themselves as able to transcend their own cultural experiences through reflection and critique. They expressed how much satisfaction they had gained from sharing research and teaching interests and collaboration across two different institutions. These individuals accepted the premise that human beings as well as programs and institutions pass through stages of growth in their development. The participants were genuinely excited when the knowledge, skills, and values gained transformed their professional practice and, in turn, who they were. Thus, "development is not a mere collection of experiences but a process of transition, a movement to new cognitive and moral territory" [Putnam & Burke, 1992, p. 46].

Collegiality

Collegiality is the willingness to build collaborative norms by reducing isolation through capacity building. It is a perspective of faculty and administrators that allow them to work together to identify common needs, goals, and a common vision of the future. In the process they get to know themselves better as they gain an understanding of others. Each individual sees the others as possessing rich resources of skills, experiences, and knowledge which complements their own. Everyone is willing to utilize his/her own talents and resources toward common solutions of group problems. Together there is increased potency for success. The whole is greater than the sum of its parts. Rather, than seeing peers as competitors, they are seen as collaborators sharing an enthusiasm for learning and problem solving. This collegiality is developed through lengthy and continuous communication. It can be accomplished through professional development support teams, professional networks, peer coaching, and collaborative research and teaching. These mentoring structures encourage collegiality by supporting the following: (1) dialogue about professional practice, (2) observations of each other's problem solving strategies and professional praxis, and (3) collaboration on curriculum design and revision, research, teaching, and evaluation. This discourse stimulates a risk taking climate where every participant encourages the learning and professional growth of others.

Collaborative, multicultural mentoring is a meaningful form of collegial interaction. According to the Holmes Group [1986], institutions such as schools recognize the transferability of knowledge among teachers. There is nothing to preclude this process among faculty in institutions of higher education. Bey [1995] suggest that mentorships serve as transferable transactions for facilitating professional development. She found that mentorship relationships cultivate professional efficacy and human interaction. These include respect, integrity, perseverance, and psychological and philosophical sense of trust. "As cooperative partnerships, mentorships magnify teachers' deliberations on educational action and issues related to theory, research, and practice" [p.12].

Respect for Difference

For some, acknowledgement of diversity increases the complexity of life. Whether the diversity refers to campus life, to life in the classroom, or life in the discipline makes little difference, it still increases the complexity of life. Addressing diversity and respecting differences promotes the pluralism of a truly democratic university system; the pluralism of ideas and perspectives that not only expands knowledge, but also ways of knowing. Respect for difference becomes a force that moves from mere consensus building to intellectual empowerment. A dynamic force which is self-reflective, seeks self and group actualization, recognizes commonalities and affirms differences. A campus climate that respects differences creates mechanisms for ensuring that all voices are heard. It allows for individuals to take risk with one another and to achieve a level of dialogue not previously imagined in academic settings.

DESCRIPTION OF THE STUDY

In this study, researchers focused on the data regarding collaboration and mentoring related to curriculum design/revision, faculty development, and institutional planning. The areas of curriculum, pedagogy, and planning are dealt with as they are cited and analyzed within the context of collaboration, mentoring, and professional development. From the data, we present specific structures and strategies which consortium faculty, administrators, and staff developed and implemented as part of mentoring for faculty development and curriculum revision in a cross-cultural, interdisciplinary, international consortium. The study participants and researchers consider the findings of the study ground-breaking in that they: (1) describe what collaborative, multicultural mentoring looks like around a common theme (Latin American Studies) across two different types of institutions; (2) link collaborative, multicultural mentoring to institutional planning and major curriculum/pedagogy revision; (3) utilize thematic working groups (cultures and languages, gender, migration, economic development); and (4) define a model for collaborative, multicultural mentoring for use in institutions of higher education internationally.

Methods

The data reported in this paper are part of a broader study that examined mentoring to diversity via a collaborative model. This research addressed the diversity of collaboration in higher education curriculum revision, faculty development, and institutional planning between and within two universities. A survey and interviewing methodology with a qualitative approach was used in this study. There were two instruments used for data collection. The first instrument elicited: (1) demographic information regarding the makeup of each institution; and (2) the extent of each individual's participation in the Consortium. The second instrument was an interview protocol developed by Sjostrom [1994] based on the objectives of the Consortium for the two participating institutions. The interview and institutional documentation data were examined using the frameworks identified earlier. The analysis was done independently by each of the two researchers who conducted a content analysis of the data and compared their results, thus ensuring inter-rater reliability. The strategies were analyzed in reference to the objectives of the consortium in terms of frequency, relevance to objective, specificity, impact, and outcomes.

Data Source

The data for this study were gathered at both sites at periodic intervals over a two year period. The data sources consisted of: (1) a review of documentation (e.g. correspondence, notes from working groups, syllabi in progress, announcements for scheduled activities); (2) data from a survey instrument and on-site interviews with administrators, faculty and students at both universities.

Results

The findings from this study revealed a consistent pattern of positive responses from project participants regarding the impact of collaboration and mentoring on their professional development. One of the key variables cited as fostering the collaborative mentoring was pairing groups of faculty with common interests and research experience to design new interdisciplinary courses, revise existing ones and organize faculty workshops. Two other variables cited frequently were: (1) the promotion and support for collaboration on faculty research projects and scholarly exchange programs across the two sites; and (2) the coordination of outreach activities to increase interaction among faculty and students with members of the professional community (business leaders, public administrators, journalists, artists, and creative writers).

The participants from the Consortium stated that they felt that their collaboration on the project responded to the need for curricular revision and development as well as the enhancement of cross-disciplinary, cross-site scholarly activity and networking among Latin Americanists. Another dimension they put forth as facilitating collaborative mentoring and faculty development was their common scholarly or disciplinary interests in Latin American Studies, albeit from diverse needs and disciplinary contexts.

The participants in our study conveyed this sense of openness and fairness via their interpersonal communication. They communicated freely with one another, while demonstrating personal respect and professional admiration. Concern, trust, professionalism, and teamwork were the cornerstones of the Consortium as evidenced by constant affirmation of the project goals, activities, and participants. The goals, objectives, and values were clearly developed and understood by the participants as evidenced in the interviews. There were no problems among the participants in reference to goals, definitions, sense of respect, and acknowledgement of all members as resources of knowledge. This acceptance of each participant as a rich resource also scaffolded mutual collaboration and mentoring. There was continuous reaffirmation of shared purposes (Gardner, 1992) exemplified by: (1) research presented at national and international conferences; (2) resource sharing of bibliographies, library holdings, and professional networks; (3) faculty exchanges whereby faculty from the University at Albany, SUNY taught at the Universidad del Sagrado Corazón and vice versa. Faculty then conducted reflective sessions to identify beneficial gains as well as professional challenges of the faculty exchange activities. The participants in this Consortium demonstrated an understanding and appreciation for the distinctive roles each member played and the talents and resources each member contributed to the Consortium.

In terms of collaborative mentoring, there were several findings which addressed faculty development in the areas of research and teaching. The most valuable benefits of participating in the Consortium, as cited by faculty from both sites, were the scholarly exchange and resource sharing. According to one of the participants from the USC, "The dialogue, validation of ideas and sharing of research 'energized' the faculty and enriched the curriculum." Other examples from the Albany site corroborated this viewpoint. One person pointed out how " the single most influential aspect of the Consortium was the cross-site exchange and how this has changed faculty views of their discipline, teaching practice, and approach to scholarly inquiry." Another said: "The exchange of scholars is a productive and exciting way of getting to know each teacher's work; an experience that will definitely have an impact on my future teaching and research." There are abundant examples from the interviews at both sites of the extensive impact of the Consortium's collaborative mentoring approach on faculty's research and teaching. There were no discrepancies or dissenting views regarding the importance of collaboration and mentoring one another as key elements of success in accomplishing the Consortium's objectives.

Many of the data from the interviews, under the category of collegiality, addressed the impact of collaborative mentoring. Faculty listed and discussed several areas of impact on their professional development from their inclusion in the Consortium and from the emphasis on collaborative mentoring within and across sites. These include: (1) collaboration across the two project sites; (2) access to archives and special collections and research contacts; (3) exchange of publications and materials; (4) productive conferences and meetings at both sites and at professional meetings which generated collaborative research and in depth information about colleagues' work;and (5) exposure to new knowledge bases within various disciplines. Faculty also emphasized extensive collaborative professional development projects including presentations, books, and articles with faculty within and across two sites; inclusion of students in activities and decision-making; and collaboration through four thematic working groups (cultures and languages, gender, migration, and economic development).

By the frequency and complexity of the examples provided by project participants regarding how a collaborative mentoring approach was implemented within and across the Consortium sites, it is evident that mentoring relationships had a major impact on project success, especially on faculty development, as perceived by project participants. These findings add empirical evidence to the collaborative mentoring model which has collegiality as a major component. In this case, participants perceived that collaboration and collegiality facilitated their professional development in the areas of research and teaching.

The components of flexibility and fluidity as essential to collaborative, cross-cultural mentoring were also corroborated by the data from this study. Numerous examples of an openness to multiple perspectives, inclusion of other viewpoints, and expansion of discipline-specific knowledge were provided by participants. A sample of these from the Sagrado Corazón site includes how the Consortium broke traditional barriers between academic disciplines, expanded knowledge and vision beyond one's own discipline and institution, and created the structure to coordinate initiatives collegewide.

Similar examples emerged from the Albany database such as: the stimulation of interest in other areas of inquiry (e.g. Dominican studies); the addition of content with a direct link to student background and experiences;the development of a level of comfort about teaching a focus previously excluded in courses, but definitely needed; different teaching practices (e.g. case studies) reflecting actual life experiences of the student body; risk-taking about adding new perspectives as a result of exposure to a new content and others who are developing and teaching it.

These examples from the data focus on several of the necessary ingredients for successful faculty development via collaborative mentoring in cross-cultural settings. These fall into the categories of: (1) a basic openness to expanding one's own view of his/her discipline to include multiple perspectives; (2) the connection between content, pedagogy, and their link to the background and experiences of students; (3) a willingness to share ideas, knowledge, and research with colleagues in a safe, open environment; and (4) an attempt to apply some of the ideas and knowledge to one's teaching practice. These are some ways in which faculty bring about change so as to influence the culture which serves as the basis upon which faculty construct their identities as part of an academic program and university community.

CASE: MENTORING IN THE ACADEMY: A CASE STUDY OF COLLABORATION AND INNOVATION

The Consortium for Undergraduate Studies on Latin America and the Carribean wanted to develop the undergraduate curriculum at one teaching institution in the Carribean and expand the curriculum at the research institution in the U.S. by combining the knowledge and expertise of faculty at both universities. The universities were awarded a U.S. Department of Education Title VI grant for a two year period (1993-95). The participant institutions chose to collaborate on this international, interdisciplinary, and cross-cultural consortium based on their common interest in the development of curriculum for Latin American Studies which is reflective of the realities of the Latin American experience emphasizing the Caribbean and the Latino/a experience in the United States. The Consortium for revising the undergraduate curriculum in Latin American and Caribbean Studies between the University at Albany, SUNY and the Universidad del Sagrado Corazón in Puerto Rico did not receive a mandate for curricular revision from a university strategic plan, mission, or goals. Rather, visionary faculty at both institutions seized the opportunity with the support of a U.S. Office of Education Title VI Grant. The differences in the type, structure, work load, and kinds of faculty productivity at these two universities necessitated the implementation of an innovative approach to the creation of new patterns and relationships in the higher education arena for curriculum revision, faculty development, and institutional planning.

The use of an innovative and collaborative structure and process within the context of revising higher education curricula is quite challenging and becomes more demanding when one understands stability of organizational patterns in higher education. Another obstacle is the deficit connotation that mentoring may conjure that of an inexperienced and often ineffective individual being guided by the experienced and successful veteran.

OBJECTIVES OF THE CASE

The case is presented for the teaching of innovation and collaboration in the teaching of higher education. It can also be used in teaching mentoring in a professional context.

GUIDE QUESTIONS

1. What kind of organizational patterns foster openness to innovation and/or collaboration?
2. What obstacles could you encounter in establishing a collaborative, interdisciplinary, cross-cultural university consortium?
3. What role can critical reflection play in the mentoring process?
4. What are the strengths and weaknesses of the traditional curriculum revision process?
5. What role can case study play in teaching innovation and change in higher education?
6. What activities/strategies have worked in promoting innovation and achieving change?

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ACTIVITIES FOR EXTENDING THINKING

1. Have students answer the guide questions individually and outside of class.
2. Create small groups of students in class and allot time for them to share and critically analyze their responses to the guide questions.
3. Have students research higher education professional associations for their stance on collaboration and mentoring.
4. Using the findings from activity 3, have students analyze the discrepancies between aspired, professed, theoretical, and real practice.
5. Have students examine whether collegiality and collaboration are the same, are different.
6. Have students identify and list key insights related to their learning using collaborative activities and/or mentoring initiatives.
7. Identify and list key insights related to the teaching of innovation, curricular revision, faculty development, and institutional planning.

SUGGESTIONS FOR TEACHING AND LEARNING

This case is suitable for individual and group work. Students can display their knowledge both orally and in written form. Case study methodology and research can be used for: (1) analyzing collaboration across institutions of higher education and disciplines; (2) generating models for collaborative mentoring; (3) generating models for faculty development; (4) encouraging curriculum development and revision across and within institutions of higher education and disciplines. It is a good way to have students analyze real situations in known institutions of higher education and examine multiple problem solving solutions.

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A CASE HISTORY OF THE UNIVERSITY OF VIRGINIA'S IN-SERVICE TEACHER EDUCATION MODEL: EXTENDING WHAT WORKS TO THE FUTURE

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Abstract

This paper represents a case history of the teacher education in-service program called McGuffey/TEMPO Reading Outreach developed and operating at the University of Virginia. The history will be described in terms of the program needs, technological advances, and demographic and political environment that effected the development of the delivery program. A companion CD-Rom will illustrate the video vignettes and case studies that have remained a constant pedagogical tool through all phases of program development (including use of VHS, broad band satellite, production "modules", Asynchronous Transfer Mode [ATM], and the World Wide Web.)

KEYWORDS: Case History, In-Service Teacher Education, Distance Education

INTRODUCTION

Distance education is defined differently by different contingents. Basically, however, most program developers agree that the common element in distance education is the very real "space" between the delivery point and the receiving group. Whereas the twentieth century was characterized by traditional educational paradigms giving way slowly to more non-traditional formats including all types of distance education, the twenty-first century will find colleges facing growing demographic pressures to extend their campuses to sites that are farther away from the home base. In point of fact, fewer traditional age undergraduate residential colleges remain in the United States. Once graduates reach the work place, they become increasingly more interested in convenience in achieving post-graduate training necessary for job security.

The University of Virginia in Charlottesville, Virginia, USA, is one of the few remaining "traditional" residential undergraduate universities that have eased into the new century. There are approximately 12,000 seventeen through twenty-two year olds living at the University, studying for their undergraduate degrees in full-time bachelors degree programs. It is at this traditional school that a non-traditional post-graduate in-service teacher-training program was developed in the 1980's by faculty in the School of Education. The program provided teacher training in reading to teachers who worked away from the University proper and wanted to perfect their pedagogical skills while remaining in their teaching positions.

Teaching is a conservatory art; practitioners, like artists, learn their craft by doing it. Teachers leave colleges for their first jobs with little experience in the classroom and rudimentary knowledge at best about teaching reading. They build some knowledge through their daily interactions with children. But it's not just interactions that make better teachers. It's thoughtful analysis and critique of daily classroom behaviors that make a better practitioner. Cases and simulations work well in situations where judgment calls are needed and aspects of analysis are complex [Barnes, Christensen, & Hansen, 1994]. Such is the case in classrooms today. Case method is recognized as valuable in building skill levels [Christensen & Hansen, 1987]; cases work best when people interacting with the cases have background experiences to bring to the analysis. The in-service teachers who study with us bring this classroom experience to their coursework.

The University of Virginia's outreach program provides an interesting model for other graduate schools of education that seek to develop their distance education capacity. The growth process that has characterized the outreach at Virginia provides a wealth of knowledge about the internal and external forces that drive such innovation. Some of the forces include the program's perceived needs, the role of the technology available to faculty members, and the changing demographic and political realities in the state and nation. These elements will be described in this case history. In addition, the use of video vignettes and cases for instruction throughout the program's development will be referred to in the paper and illustrated by video examples on CD-ROM.

BACKGROUND

The reading education program at the University of Virginia is housed in the Department of Curriculum and Instruction in the Curry School of Education. McGuffey Reading Center is the home of the reading faculty and is the oldest operational reading center in the United States. The reading program at the University of Virginia is primarily a graduate program. Most graduate students in reading pursue their Masters degrees and become reading specialists. Some are studying for their doctorates in reading education (Ed.D. and Ph.D. degrees are both awarded). Graduate students are trained clinically. This means they work with children on a daily basis in the diagnostic clinics and in remedial clinics housed at the University and also, most recently, in local elementary schools. The program is recognized for its developmental perspective on how children learn to read and spell and for its distinctive clinical training, among other things.

Courses taught away from the University's home base are delivered through the Division of Continuing Education, the University's large statewide delivery mechanism. Because there are seven regional Continuing Education Centers throughout the state, each center with a staff trained to facilitate course delivery, it is easy for residential faculty to teach in remote sites and maintain their subject's integrity. Personnel at the University's Centers handle course registration, filing of grades, and all the service aspects of bringing study to remote sites. This includes marketing. Faculty could concentrate on developing courses to serve school districts' needs, making tapes of teaching demonstrations, teaching in clinical courses during summers, and mentoring graduate students.

FIRST PHASE: THE FOUNDING YEARS

In the early 1980's, nearly twenty years ago, reading faculty at the Curry School of Education began to travel away from the University to teach Masters degree classes in reading education to teachers who worked away from the University. It was, in retrospect, a perfect "fit" for a clinical program: teachers who were graduate students worked every day with their own children under the mentoring of university faculty. Their children benefited as they became better teachers of reading. It was an intriguing new role for the faculty members who ventured out to the field. At home at the University, parents brought children to the clinics. In the field, children were readily available in their natural surroundings--classrooms and schools.

COURSE DESIGN

Faculty members traveled to the school sites weekly [sometimes one and a half-hour's drive from Charlottesville] to teach the graduate courses and, while they were there, they worked with children in classrooms to demonstrate theories being explained. Their teaching demonstrations were videotaped and became the cases that would help teachers learn methods and practices to teach reading. This was the beginning of the use of real life videotaped cases used to train teachers who wanted to become better at the most important task of their careers—teaching children how to read [Abouzeid & Scott, 1994]. Courses were built around practicum assignments that called on teachers to try-out what was being discussed. Before teachers were asked to work with their children on a practicum assignment, they saw the method demonstrated for them. This demanded videotaped demonstrations of faculty members or master teachers using the process being studied.

FACULTY

Two new faculty members were hired to work in this project alongside the tenured full professor who saw the value of this outreach. These assistant professors were graduates of the University's reading doctoral program and were hired as members of the General faculty. This classification allows the institution to hire faculty to serve specific program needs. A General faculty member's tenure at the University is completely tied to the success of the program, with definite time-lines in place for faculty security. Promotion is based on program goals as well. Many teaching positions in medicine, law, and education, at the University of Virginia, are filled by General faculty appointments [as many as one-third of the Education School's faculty are hired in the General track].

During Phase One of the outreach program's development, the three faculty members traded off teaching responsibilities at home and in the field. They shared the design of courses and took turns traveling and making video demonstration teaching tapes.

EXTERNAL AND INTERNAL FORCES

It was the foresight of the residential faculty members answering one and then two school districts' requests for an on-site Masters degree program that drove the initial outreach. Technology available to these pioneers was limited--they had a video camera and editing decks. Graduate student assistants often were volunteered as site teachers or as camera operators. Believing as they did that teaching is a conservatory art, the professors did demonstrations in classrooms to illustrate methods they were discussing in their courses. These teaching demonstrations were recorded by means of VHS tape. Faculty members learned how to annotate and edit video-demonstrations that were returned to their students for viewing and subsequent discussion. The first group of teachers received Masters degrees in reading after three years of part-time study.

Politically, there were no apparent external forces specifically driving the original faculty to work in the field. The reading program at the Curry School, however, had experienced low enrollments of full-time students enrolled in the graduate program. This low enrollment was related to the economics of the early 1980's as well as to population demographics. This was the reading faculty's opportunity to move closer to prospective students who could not afford to stop teaching to study for fifteen months for their professional degrees.

PHASE TWO: 1986-89

After just a few years of traveling, editing, and working in two school districts, the reading faculty realized the power of this new format of instruction. They were amassing a collection of real-life classroom demonstrations that helped teachers in the distance sites understand the nuances of decision-making in teaching reading. It did not take much to realize that this catalogue of re-usable VHS tapes could be useful for other classes and other sites. The outreach project, now named TEMPO, an acronym for Teaching Educators McGuffey Practicums Off-Grounds, was born, and its hallmark became the ability to show teachers the very methods and techniques they were being taught. Marketing began; the first TEMPO brochure was an expensive tri-fold that contained separate cards describing different aspects of the outreach.

At this point, an engineer working in the Division of Continuing Education took notice of the outreach faculty and secured a grant for funding that would allow the them to teach to farther points in the Commonwealth of Virginia through satellite transmissions. The School of Engineering at the University was already using the satellite to train more engineers across Virginia. A state-of-the-art broadcast classroom facility had been built in the Engineering School. The new grant allowed the School of Education's faculty the same ability, using the new technology. Classes had to be scheduled on Saturday mornings because of the engineering classroom's availability. But that did not seem to bother the school districts that wanted the reading courses.

Faced with a new satellite design, the focus remained on Masters degree study. It was decided that four of the "core" courses of the University's Masters degree in reading would be broadcast to remote sites via satellite, one each semester, on a two-year cycle. Existing faculty members were recruited to design and teach in the engineering classroom at the University where engineers and technicians were hired to broadcast the reading lectures and demonstrations across the state.

From the first phase of one faculty member traveling and working in one school district, Phase Two saw the outreach expanding to more than one site at one time because of the added technology. Interestingly enough, the Masters course being taught each semester was still developed for one or sometimes two off-Grounds Masters sites, just as before. But, because of the satellite possibility, other sites could tap into the lectures and demonstrations if the school district possessed a satellite dish. In other words, teachers could register for the graduate courses taught via satellite and use these courses for their own professional development [re-certification for teaching licensure, for example].

STATE ADJUNCT FACULTY

The widening imprint of outreach classes necessitated finding adjunct faculty who could teach at the new state sites. These people would be present during the broadcast lectures and demonstrations, guide the discussions, and be responsible for grading the student work. Doctoral students and program graduates became those adjuncts. Resident faculty worked on the broadcast set; adjunct faculty taught the distance classes. This was the model that evolved and that has continued to serve the program. It will be seen that the presence of on-site faculty has become another hallmark of the University of Virginia's definition of distance education.

EXTERNAL AND INTERNAL FORCES

In the 1980's, the Commonwealth of Virginia's Department of Education nudged school districts toward reading endorsement status for all reading teachers, both federally and locally funded. Additionally, the state led a funding initiative that provided for school districts to become "technology ready" with satellite connectivity. The goal was to have each of the 132 school districts connected via technology by 1990. In reality, as the University was making strides in the use of the new technology, school districts were often unable to make the satellite connection. For example, the dish would not be operational; at sites near the Appalachian Mountains, "shadows" prevented clear transmissions on some days; in some districts, the receiving hardware (monitors and microphones for interactive discussions) was placed in rooms too small to hold the numbers of teachers registered in the courses. In other words, the University was able to broadcast lectures that often could not be received "live" by a district.

To remedy this situation and work around technology lags, master class tapes were produced for each satellite class. As the lecture was delivered, copies were made simultaneously to be sent to sites where technology was not in place or was not working. Although this was not seen as optimum instruction (and, in fact, the University of Virginia did not and does not today sanction teaching by means of tapes), the tapes became a way to connect the state adjunct instructors to the at-home program. Instructors used the tapes to prepare themselves for delivering lectures. They also used the videotape teaching vignettes to illustrate the methods discussed in the lectures.

CLASS DESIGN

During Phase Two, there were between five and six school districts and/or Continuing Education Centers receiving the satellite lectures that were delivered six times during the semester. On alternate weeks, adjunct instructors across the state conducted class. Each semester, a class syllabus was prepared and shared with the state adjunct faculty. These instructors came to Charlottesville before classes started to meet informally with the resident faculty, renew ties, receive course information, and become part of the state delivery team for the semester. All classes in the state shared the same syllabus, the same readings, the same live (if possible) satellite lectures and teaching demonstrations, the same practicum-based assignments, and the same final exams. If live satellite was not possible at a site, the instructor at that site was encouraged to use the tape that was mailed out the day after production to assist him/her in instruction.

The syllabus for every class outlined six satellite lectures on specific topics followed each by six on-site follow-up classes. This was the two-week cycle. One week, students would receive a lecture from Charlottesville. They would see the practicum assignment demonstrated. They would have readings to complete. On the successive week, they would return to their local class site and share the outcomes of the practicum assignments and their synthesis of the assigned readings with their own instructor and fellow class members. Three additional classes, not tied to the satellite lectures, completed the forty-five contact hours required for completion of the graduate course.

Another reason for the two-week cycle was the amount of time that was needed to prepare a satellite lecture. It became increasingly apparent to the faculty involved that they needed assistance in designing and producing the instructional elements that would illustrate their lectures on satellite if they wished to also continue their at-home teaching and advising. The demands of teaching on a nationally broadcast medium forced these already non-traditional faculty members to examine the design of their instruction closely.

PHASE THREE: 1989-1993

In 1989, the University's Division of Continuing Education and the Curry School of Education expanded their partnership to hire two additional assistant professors and an instructional designer for the TEMPO outreach. The new faculty members were graduates of the University's doctoral reading program and thus, were knowledgeable about the model of clinical instruction that the outreach program represented in the state. Space was allocated for offices within one of Continuing Education's regional centers and support was extended in a formal way (part-time secretarial assistance and budgeting done by the Center staff). TEMPO faculty members were academic members of the Curry School's Department of Curriculum and Instruction and had offices in the Ed School. Salaries were paid by Continuing Education; program support came from both Continuing Ed and the Curry School. At this time, the outreach program was charged with continuing the off-site Masters instruction and expanding the offering of professional development courses in reading that could be marketed to non-Masters sites through Continuing Education. The outreach program was poised for growth.

That year, the University's reading outreach served three different Masters sites, still through the use of satellite and faculty travel, and eight professional development sites with adjuncts. Within two years, the professional development sites increased to sixteen. The four faculty members served as program coordinators, graduate advisors and on-site instructors for clinical courses in the three Masters sites.

The newly hired instructional designer facilitated the organization of a library of existing tapes, the collection of new footage, and the design of the broadcast classes. Because of the new position, two different graduate classes were delivered via the technology of satellite. The instructional designer also began constructing cases for the two classes. The cases used video footage to depict teaching situations that presented a dilemma for students in our classes. For the first time, video footage was obtained from the classrooms of teachers who had been trained through the University's home and field programs. Some of the cases used included examples of teachers assessing their students for reading instruction. Graduate students watching the cases could practice scoring a diagnostic assessment, then, through a case in their diagnosis class before they had to administer the assessment to a real child. In this way, classroom teachers across the state became partners with faculty to create situations that helped train in-service teachers.

EXTERNAL AND INTERNAL FORCES

During Phase Three delivery broke away from one course each semester. First, two courses were offered simultaneously, then four. This entailed more highly detailed coordination in the program office. For example, faculty members worked with school districts to market classes tailored to the district's needs. They contacted, trained, and mentored adjunct faculty. They designed syllabi and course materials to accompany each course. These things now had to be produced in larger numbers, related to course requests. More videotapes needed to be produced when a live broadcast was delivered. Mailing costs and shipping costs increased. And all of this had to be coordinated with seven regional Continuing Education Centers across the state.

Although the state was still encouraging teachers to become reading specialists if they wanted to teach in federally funded programs, it was during this time period that the Department of Education made an unprecedented move to allow state teachers re-certification without in-service graduate coursework. In other words, teachers could amass "points" for performing a variety of unconnected professional tasks such as attending a meeting, delivering a talk, or taking a non-credit workshop. There are several ways to interpret the state's stance on teacher re-certification. The revised guidelines occurred during a period of teacher empowerment. This was expressed in the reading field as "whole language" instruction. As the DOE was downplaying the role of graduate coursework, it simultaneously funded training in Reading Recovery®, a whole language intervention program that provided teachers with intensive (and expensive!) training as one-on-one tutors for at-risk first graders. An additional 'disconnect' between the state and the nation was apparent in the national goal of "literacy for all" by the year 2000. The national goals began to drive legislation in ways that were not obvious in Virginia, although the national governors' conference from which the goals emerged took place at the University. This paradox in messages teachers received from the accreditation board threatened to derail the University's professional development outreach in the first half of the 1990's.

The opposite occurred, however. In fact, although the state delivered its re-certification directives, some school districts continued to seek reading courses and Masters degrees in reading for their teachers. Many of them had already received field-based course work and wanted to continue these opportunities for their teachers. In many of these districts, central office personnel had been educated at the University of Virginia and remained committed to reading education that did not present a totally whole language perspective. Others read research on Reading Recovery® and recognized that it was an expensive program, the results of which did not appear to hold up over time for the children served. Whatever the combination of reasons, the TEMPO Outreach program continued to grow. Throughout this time, TEMPO faculty maintained an academic presence at state conferences and the George Graham Lectures in Reading, a University gift-funded lecture series that brought leading researchers to Charlottesville to talk with state teachers about topics of interest in the field of reading.

INSTRUCTIONAL DESIGN

As the number of broadcast courses increased during Phase Three, so did the faculty who taught through this medium. One of the incentives faculty new to this format found intriguing was the ability to illustrate their lectures with videotapes of children. The reading faculty had already discovered this bonus; now it was the psychology faculty and writing instructors working in the program who could experience the assistance of a professional instructional designer.

Another hallmark of well-designed distance education classes is interactivity. The instructional designer worked with reading (and other) faculty to help them emerge from a "talking head" presentation, lethal to effective distance course delivery, to a more interactive teaching style. This, of course, demanded more time spent on course planning and preparation at the individual class level. Study guides were prepared for every televised class and sent to the sites before the class was taught. Information necessary for class participation in the televised lecture was sent along with the study guides. A typical instructional sequence within a lecture would be: 1) posing a question to the class (or classes, if the course is being televised live to remote sites); 2) recording student responses as prior knowledge related to the case being studied; 3) watching the case or demonstration; 4) discussing the case; and 5) returning to the original teacher-generated ideas to adjust them in light of the case and discussion. The theory being discussed became real as the case or demonstration unfolded [Sykes & Bird, 1992].

Another key aspect that was woven into course planning and delivery at this time was an evaluation or feedback procedure. Mid-stream informal feedback was obtained from each state class. Final [more formal] evaluations followed the course. These were used by the faculty and the instructional designer to trouble-shoot problems during the course delivery, if they occurred, and to work subsequently with faculty who were having difficulty with the delivery format, if that was called for. The evaluation procedure became a direct way to tailor faculty support and adjust course design for optimum teaching.

The instructional design training described above for resident faculty also became part of the adjunct faculty training seminars each semester. State adjunct faculty were encouraged to use pieces of taped class lectures, especially those containing video-teaching demonstrations, interactively, if their site was unable to receive the class "live". Part of every training session included training in how to use teaching demonstrations on videotape in ways that most facilitated student learning. As it turned out, this faculty training became more important as the cost of satellite use became prohibitive during the mid 1990's.

PHASE FOUR: 1994-1997

The reading outreach program, by the mid 1990's, was delivering twenty-four classes each semester across the state. Six to eight different three-credit graduate courses were taught, requested by sites as far away as Hampton Roads, Northern Virginia, and far Southwest regions. Also by the mid 1990's, satellite costs had risen to the point that televised classes were not a possibility. The grant that had originally funded the outreach delivery was gone by 1992 and subsequent delivery costs had to be covered by the program's budget. The decision was made to change the mode of delivery to modules, with the last satellite course taught in fall 1994.

INSTRUCTIONAL DESIGN

The new format became production "modules" that contained lectures with teaching demonstrations illustrating key course topics. During this period of development, cases were supported with these modules. A course was structured, for example, around three pivotal cases that illustrated the "stages" of reading development (emergent, beginning, and instructional reader). These three cases each contained a testing session with one child, followed by the intervention instruction that was designed to match the child's diagnosed reading needs. After viewing and discussing the three cases, teachers diagnosed a child in their own classrooms using the same assessment instruments and designed instruction for the child. The cases teachers viewed structured their learning and their own subsequent practicum assignments.

FACULTY ASSIGNMENTS

Because of the time requirements for the production of the video modules, the faculty and instructional designer agreed on a schedule for the production of each module. They looked back at the past satellite classes, judged which classes were adequately supported with taped teaching demonstrations, and which needed updating. Then resident faculty were assigned to teach the targeted course to graduate students at the University during the semester that the modules were being produced. This way, it was possible to field-test the workability of a module before it was sent to the field. One graduate class and one production cycle constituted a faculty teaching load for a given semester, in an acknowledgement of the intensive amount of time the production of a module entailed. This same faculty load policy, in place during satellite transmission, remained a reasonable way to connect time to production.

Because of University reassignments and attrition, in 1994 the number of University General faculty assigned to work in the reading outreach program was reduced to one. A new faculty member was hired by national search that year; this person, hired as Director, was not familiar with the University of

Virginia's unique clinical approach to reading training and, hence, the actual coordination of the outreach program remained the responsibility of the associate professor who had been with the program since 1989. During the same period of time, despite the lowered number of faculty, two permanent field-based Masters sites were begun, one in the populous Northern Virginia area, bordering Washington, DC, and another in the state's capital, Richmond. In addition, there was a cohort group studying in Danville, VA, at the North Carolina border. Adjunct faculty assisted with course delivery at these sites as well as at the other professional development sites across the state.

In 1997, an additional faculty member was hired to advise and coordinate the growing program in Northern Virginia. This person was hired by national search and was not familiar with the format of clinical training. It can be seen that, although there were now three faculty members in residence with the outreach program, only one of these people was familiar with the aspects of the outreach that made it unique. This became a very real problem in the program's continuity.

PHASE FIVE: 1997-PRESENT

The outreach program underwent a University self-study in 1997 which resulted in the recommendation to keep the program fully supported as a viable extension of the University of Virginia's Curry School of Education's mission statement. During this phase, the number of courses delivered increased to approximately fifty each semester. One thousand teachers in Virginia register for and receive credit for graduate courses each semester; the courses they take are identical in requirements and course experiences to those taught in Charlottesville. Four full-time resident General faculty coordinate the program; a search is on for a fifth person for the Northern Virginia site (the person hired in 1997 moved to another University). The director who was hired in 1994 was not rehired in 1998. At this time, all the faculty working in the program are graduates of the University of Virginia, well-able to represent the format of the reading education program to the state.

EXTERNAL AND INTERNAL FORCES

In 1997, the state Department of Education funded an early reading initiative and produced a screening instrument for use in all the kindergartens and first grades in the state. The screening instrument, called PALS (Phonological Awareness Literacy Screening), was developed by faculty at the Curry School of Education, McGuffey Reading Center. As a result of this state initiative, school districts have actively sought coursework for their teachers to help them with the design of early reading prevention programs. In addition, the state adopted high-stakes testing for grades 4, 7, and 11. This legislation has provided school districts with money for professional development training. It is becoming more apparent to central office personnel in school districts in Virginia that children need to be able to read in order to pass the mandated content tests.

In 1999, the Division of Continuing Education completed installation of Asynchronous Transfer Mode delivery technology (ATM) that connected the University with its regional Centers. ATM enables faculty and students to simultaneously see and hear each other, which is as close as we can come to being on-site. In the fall of 1999, a McGuffey/TEMPO faculty member taught the first ATM course to the Centers across the state. On the weeks of ATM lectures, there were five groups of teachers sitting in remote sites who were able to see and talk with the faculty member and her class at the University. Each class had its own adjunct faculty member who followed the two-week cycle format described earlier. [Interestingly, some of the students who took that course are today together in a doctoral seminar in Charlottesville; they recognized each other from their ATM class experiences!]

Today, at the turn of the century, the program those original faculty members began is healthier than ever. Some of the 1000 teachers studying with us each semester are taking their Masters degrees in our off-Grounds sites. All of the teachers studying in our program, both at the University and in off-Grounds sites, benefit from the cases and teaching demonstrations we create to "bring home" the intricacies of teaching. The teaching demonstrations become the exemplars, which assist faculty in illustrating best practices in teaching (Merseth, 1996). At the present time, we are re-designing one of our most in-demand courses for the World Wide Web. This class is tightly tied to demonstrations. But the challenge is to make the cases and demonstrations work with a distance education audience. Teachers who will register for this class will experience the same lectures, the same demonstrations through videostreaming, and the same student products for the cases as students taking the course on Grounds. They will, however, have to form study groups and give course responses through the Web.

SUMMARY

Our teaching cases and classroom demonstrations have been widely used at professional conferences in the United States and Europe. Many calls and requests for the video-cases are received from faculty members at sister institutions who have not begun to produce such cases and yet want them to use them to their classes; all of our doctoral graduates leave the University with a library of cases they can use to assist them in teaching. In addition, most of our graduates have received mentored experiences in teaching in-service teachers. Many of them begin making their own cases and video demonstrations as they build their own programs.

Adjunct faculty across the state assist in program delivery in an integral way. They, too, receive professional development updates in return. At a recent state reading conference, we counted the presenters who had been through course work from the University of Virginia or worked as adjunct instructors, and the number was impressive. There can be no doubt that this professional development graduate reading outreach has affected our state in positive ways.

Many of the things we have learned through our history are best understood in hindsight. For example, we know that it is important for state outreach faculty to be extremely familiar with the program they are being asked to represent. It cannot be assumed that a one-size-fits-all doctoral background can fit this need. In other words, despite higher education "conventional wisdom", it is smart to hire one's own graduates back for field-based programs. Similarly, it is vital that state adjunct instructors receive yearly (in our case, twice-yearly) professional training in techniques used to teach adults. Other support that needs to be shared among faculty is grading protocols, evaluation techniques, and interactive use of cases and video-clips. None of this learning can be expected to happen automatically. Finally, distance education follows the direction of the people guiding it. The University of Virginia's reading model is unique for the connection its students have to the University, despite being removed by space. It is recognized for its use of video cases and demonstrations. And, most importantly, it is seen as a program that can adapt to new technology and to school districts' needs. These are important aspects of a program that remains viable.

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INNOVATION IN TEACHING TEACHERS: CASE STUDIES AND THE USE OF CASE STUDIES IN PROFESSIONAL DEVELOPMENT

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Abstract

Teacher educators are being challenged to prepare technology literate teachers. Before university faculty can undertake this task they must be technologically literate themselves. Supporting the conference theme, "Complex Demands on Teaching Require Innovation," this paper details three case studies which describe innovative approaches to incorporating technology into the teacher education curriculum: I) highlights of a mentor-mentee relationship that served as the catalyst for a school-wide faculty mentoring program; II) the use of film cases to make visible the complexities of teaching; and III) the use of electronic portfolios as a way of assessing students' understanding of diverse education contexts.

KEYWORDS: mentoring, faculty development, technology integration, preservice educa-tion, teacher education, film cases, electronic portfolios, diversity

I. FACULTY DEVELOPMENT: A MENTORING APPROACH

"I would really like to learn how to use the web to create a home site for my students. Is there any way you can give me some of your time to help me get started?" Like an invitation to charge, this plea for help launched Sue and I into a mentoring relationship, which has helped provide the inspiration for a schoolwide faculty mentoring program. Our goal: to provide education faculty with the skills and experiences they need as they learn to integrate technology into their teaching and research, and model technology use for their students. The case: a look at how this mentoring relationship has evolved as a method of helping faculty learn to integrate technology use in their teaching.

To be effective, a teacher education program must prepare teachers to use technology in three different ways: 1) through some type of required course or prerequisite that assures competency with using technology; 2) through participation in classes led by teacher education faculty who model the use of technology and methodically integrate that use into all teacher education courses; 3) through field placements with cooperating teachers who routinely use technology in their teaching, and encourage preservice teachers to practice using technology during their student teaching experiences. [McCoy, 1999; Ropp, 1999; Smith, Houston, & Robin, 1995; US Congress, 1995; Vannatta & Reinhart, 1999; Voogt & Odenthal, 1999] The focus of this study is on the second of these three areas. Before faculty can effectively model technology enhanced teaching, they must have the skills and confidence to risk integrating technology use into the courses they teach.

BACKGROUND

Teacher educators are being challenged to prepare teachers who are technology literate. Before they can do this, they must be technology literate themselves, and willing to risk modeling technology use in their university classrooms. A 1995 report from the Office of Technology Assessment found:

> *Teacher education faculty need help integrating technology into the courses they teach. Since the majority of teacher education faculty completed graduate programs and taught in schools where technology was not a major part of the educational environment, it is not surprising that they tend to have limited experience with technologies for instruction. But simply telling teacher education students about what is possible is not enough; they must see technology used by their instructors, observe uses of technological tools in classrooms, and practice teaching with technologies themselves if they are to use these tools effectively in their own teaching once they graduate. [US Congress, 1995]*

Six years ago, when I first arrived at Portland State University, only one or two teacher education faculty were routinely using computer technology in their classrooms. Part of this was due to the technology itself. It was inconvenient to move and set-up, in short supply, and unpredictable at best. Faculty appeared to be interested in learning to use technology, but unwilling to risk teaching with it without a great deal of technical support (something we couldn't supply). One solution was to bring a whole class into the computer lab for instruction. Though this worked, it didn't serve as a good model of the type of computer access found in most of the K-12 classrooms our preservice teachers would be observing, or moving to at the end of their programs.

Within two years, the portable technologies needed for one- and two-computer classroom models became more affordable and more reliable. As a result we were able to offer faculty an opportunity to model technology use within the general teacher education classroom. At the same time, our ability to connect via the internet improved, and a few faculty began using this medium as a way to communicate with students, and post and receive assignments. In an effort to capitalize on this interest, and help all faculty move closer to modeling 21st century classrooms, we offered a number of workshops, faculty incentives, and summer training sessions. Like Bentley and Mumma, we soon discovered, however, that "...such change cannot occur through 'one-size-fits-all' workshops... ." [Bentley & Mumma, 1999] This method worked well for us "early adopters," but that was only a small portion of our full teacher education faculty. Private requests from several of our faculty made me painfully aware of the challenge: "I'm sorry I didn't make it to the workshop today. I really need the help, but don't want to embarrass myself by showing my ignorance in front of my colleagues." Clearly, we needed a new model that allowed faculty to learn within the comfort and safety of their own offices, and collaborate with an experienced technology user who would be sensitive to their needs and help them move forward from their current experience level at a mutually determined pace. I had heard of faculty mentoring programs at universities such as Iowa State and Carson-Newman College [Beisser, Kurth, & Reinhart, 1997; Beisser, 2000; Bentley & Mumma, 1999; Milligan & Robinson, 1997]. Borrowing from their models, I developed our own version which paired graduate assistants who were working as lab assistants in our instructional support lab (under my direction) with school of education faculty. Due to the nature of their work, these graduate assistants were experienced technology users, and knowledge of the technology that was available for faculty use through the lab. Each mentor-mentee team planned to meet once a week for about an hour, and set their own agenda based on the needs of the faculty person and the skill level of the graduate assistant. In an effort to model effective mentoring and get an idea of how the mentoring commitment might work over the course of a year or more, I continued to work with Sue throughout that year and the year following. It is that specific relationship that I am writing about in this study. How did our mentor-mentee relationship evolve, and what lessons could we learn that would help build similar relationships between the faculty and graduate assistants in our teacher education program?

CONTEXT AND PROCESS

When Sue requested the extra help with technology use, the beginnings of a different model were born. What if we used graduate students as mentors, as part of the assistantships they filled as employees of our instructional support lab? After all, these are the teacher education students who know how to use the technology. Pairing them with faculty who understand and teach the theory that is needed to know when and how to teach with technology would be beneficial to both parties. Rather than wait for the next fall, when the project was scheduled to begin, Sue and I decided to begin working together during the spring, and get some idea of how this type of mentoring might work. What kind of relationship would be needed to assure benefits for both the mentor and "mentee?" How might their roles evolve? What impact would this have on each partner as they explore teaching with technology?

"I don't know what it would look like, but somehow I'd like students to be able to access their assignments via the web, and share information with each other via email. At the same time, I'm not sure I want the whole world as an audience for our work and conversation." Wow! An interesting challenge. I had been using web pages to share my course syllabi and assignments for about a year. I had also been using computer bulletin boards as a forum for class discussions and communications. During the past month I'd been hearing about a new web application that the university was testing called WebCT. It was supposed to provide the kind of environment Sue was describing, but I had only just begun to experiment with it. Rather than wait until I had a better understanding of how the software worked, I decided to risk showing my lack of expertise and offer to explore using WebCT with Sue as a possible solution to her challenge. To do so, I had to be willing to admit that I didn't have all the answers, and accept the fact that even though I was supposed to be the mentor, our roles frequently reversed so that I was able to learn as much from her as she learned from me. Sue designed her WebCT course site while I designed one for a class I was teaching that spring. By fall, we were both feeling like veterans, and eager to share our enthusiasm with colleagues.

Sue's next major request proved to be even more exciting than our first experiences learning to design and use web resources for teaching and learning, "I'd like to have my students create some type of computer presentation to share the job shadow projects they've been doing, but I'd like it to be more than just text. Could we find a way to record them talking about their projects, and combine that with an electronic version of the papers they are writing?" Another wow! By applying her learning to her teaching, Sue was altering her expectations for the teacher education students in her charge. She was also, again, challenging me to extend my levels of expertise. Over the next several weeks, we tried out various computer software applications that would allow students to record their narration on the computer. At the same time, Sue worked with her students as they converted their papers to a web page format. Less than a month later, Sue assembled a web site on CD, which combined each student's paper with a link to an audio narration of their project. During their final class session each student received a copy of the class CD and had an opportunity to view and critique their peers' project presentations.

The following year, Sue took this project a step further. This time, I worked with Sue to create a template for a project sharing web site complete with multiple pages, a directory, and a video introduction in which students "pitched" their project proposal to a school principal or company. Rather than linking these projects with just hyperlinks, Sue used photos of her students to link from the project index page to each student's web site. Students received special instruction on how to edit their web sites, and us a digital camera to record still images and video clips. As in the previous year, each student received a copy of the CD with full class web project, and had an opportunity to share and critique each other's presentations. Sue has also extended this learning by involving students in other classes and master's projects in technology enhanced learning experiences.

As both researcher and participant in this process, it is easy for me to report the activities we participated in and the outcomes from my perspective. I was both participant and observer, and carry that bias into my writing. What I could not report on, however, was Sue's view of the mentor-mentee relationship, and the way she saw the relationship affecting her teaching and learning. To present that perspective, I would need Sue's thoughts and words. Sue supplied me with that additional information by allowing me to interview her about our work together, and providing me with a written reflection that shares her perspective.

THE STUDY

What lead to our success: strong friendship, comfortable relationship with each other, willingness to admit that neither of us had all the answers, security in knowing that this admission didn't change the working relationship or respect, willingness to try new things together, willingness to work separately to find other avenues and share that learning, eagerness to share our learning with others, fearlessness when it comes to trying new things, willingness to explore the "what ifs", The following section share's Sue's perspective in her own words.

Mentee Perspective

"Our working relationship began with a common interest... using newly acquired technology (i.e., Web CT) to support courses we were teaching. When I mentioned this interest to Dave, he encouraged me to create a course web site for a new course I was preparing. That was in the summer of 1998 and Dave has been my technology mentor ever since."

"With Dave's assistance, I have created course web pages, course assignments and a master's project that require students to experiment with a variety of technology applications. I have learned to use Web CT, a course web tool, to support my teaching in coursework and student teaching/field experience contexts. I have learned to create HTML pages and then link them to course web pages. In the past two years, I have been refining a course assignment that supports students to create their own project web pages including photographs and video clips. The end product is a CD that showcases the projects of the entire class. More recently, I have been working with 2 students to complete their Master's project. Their project, The Career Resource Guide, provides middle and high school teachers with an easy to navigate CD that lists local guest speakers, field trips and activities focused on career exploration and development. This term, students in my Collaboration course were required to facilitate weekly topic seminars using Power Point and a Smart Board as presentation tools. These are all new experiences for me and have increased my confidence in using technology in a meaningful way."

Sue's continued enthusiasm is apparent as she discusses her plans for the future:

"I am interested in learning how to incorporate larger digital video files within web pages I design. We currently ask student teachers to submit a 5 minute video clip to be viewed by other students and faculty. I would like to be able to transfer video footage from traditional tapes to an HTML page on a CD. Since we view these video clips in small groups of 5-6 students, it would be nice to teach students to create a customized CD showcasing their teaching videos."

"I am also interested in designing course assignments that requires students to: a) actively research a topic(s) using a variety of electronic databases and; b) create lesson plans, problem solving processes and other activities using concept mapping software (e.g., Inspiration, etc.). I want to explore software applications that help adolescents and adults with disabilities organize and comprehend educational materials. Our local community college showcased some software they use and I would like to research the different applications available for future purchase in our instructional lab."

"There are many other ideas I've been thinking about but these are the ones to begin with."

What has made this mentoring relationship successful? How well has mentoring served as an approach to professional development? How has Sue benefited from this experience?

"For one thing, Dave has been the most enriching and encouraging professional partner I have ever known. The opportunities to learn are limitless and I am motivated to create experiences that inspire students to try something new. I believe that we need to provide experiences to others that will be relevant in future contexts."

"Another benefit to being mentored is that I get to learn in the context of my role as an instructor. Contextual learning fits my learning style. I do not choose to enroll in classes that teach isolated skills. Instead, I can explore the relevance of using technology in my work within the regularly scheduled sessions I have with Dave."

"For the most part, this experience has boosted my confidence to create/sponsor innovative projects during my short stay here at Portland State University. I have become known as a technology resource within the Special Education program. Starting next term, one third of my job responsibility will be devoted to mentoring special education faculty to create web-based course. This is tremendously rewarding and allows me to pass on my experiences and enthusiasm to others."

What worked? What didn't work? What kinds of challenges and barriers have we had to overcome to make the mentoring relationship effective?

"Dave's openness to follow my vision has allowed me to experiment with the unique projects I value. If I suggest an idea for a project, Dave helps me discover the path to achieve my vision of the project. I sit at the computer and do the work (so I learn) and he coaches from the side. There have been a few technology glitches (e.g., figuring out how to record and use audio files, my inability to get the Smart Board to work during a presentation, etc.) that have happened along the way but they are minimal and have been instructive for future experiences."

"Time to work is an on-going challenge with our active teaching schedules. At times, Dave and I may need to reschedule meeting times during the week but we both prioritize our time together to be productive and creative. What a dream."

Mentor Perspective

It's difficult to remain modest and unbiased with such glowing accolades. From my perspective, Sue's comment about sharing "common interests" and our shared passion for learning has helped ensure the success of our mentor-mentee relationship. We've developed an honest relationship in which it isn't important for me, as mentor, to have all the answers. We are both comfortable enough with each other that the roles of mentor and mentee shift, blur, and sometimes reverse.

Laurent Daloz, in his book on mentoring adults notes: "Mentors are guides. They lead us along the journey of our lives. We trust them because they have been there before." [Daloz, 1986] In our mentor-mentee relationship, I have helped guide Sue as she has explored various ways to teach with technology within the very real "context of [her] role as an instructor." Having the opportunity to watch Sue create new learning experiences for her students has provided me with the inspiration to do the same with my students. As a result I find myself looking for new and creative ways to redesign my teaching, and structure learning experiences for my students the build on the models we have developed together.

CONCLUSIONS

Having the opportunity to participate in this successful mentoring partnership has also helped me to step back and examine the relationships my graduate assistants have had with their mentees, and hypothesize about why they may or may not have worked. Obstacles such as the inability to find a regular time to meet; lack of motivation, commitment, or planning; and differences in skill level have been fairly easy to identify. These same obstacles have been mentioned by researchers working with other faculty mentoring programs [Beisser et al., 1997; Bentley & Mumma, 1999; Milligan & Robinson, 1997].

Daloz suggests that the very nature of mentoring adult learners presents obstacles that I hadn't considered when initiating this program: "...the management of power over the life of the relationship is a central problem for both partners. As the partners come to know each other more intimately, there is pressure for the relationship to become more symmetrical. In many cases, the strain is too much. One partner moves too fast, the other is unwilling to change, or the changes are inappropriate, and the relationship collapses." [Daloz, 1986] As we move into the third year of this program, it will be critical for me to work with both faculty and students to help assure that both mentor and mentee understand the relationship they are agreeing to, and encourage the kind of planning and communication that leads to healthy expectations and experiences.

My work with Sue has convinced me of the value of this type of approach to faculty development, whether the focus is on technology integration or some other aspect of teaching and learning. Sharing our successes, and insights into the relationship we have established may help others succeed in doing the same. The benefits to students as faculty learn to teach with technology and model that learning in their classes will be evidence that we have been successful in our efforts. One such example was shared by the wife of one of our faculty as she commented on the impact of her husbands work with a graduate assistant mentor: "I'm amazed at the impact those hourly mentoring sessions have had on my husband. Each week he comes home with something new that he learned that he wasn't able to do before. 'Did you know you could..." is something I hear quite frequently. I've never seen him so motivated to learn more about what he can do with the computer. Suddenly he is eager to learn more and try new things." For me, this is proof that a mentoring approach to faculty development is effective, and will serve as a way for us to help prepare teachers who effectively integrate technology into their own teaching and learning.

II. WHO DOES THIS FILM THINK YOU ARE? IMAGES OF TEACHERS AND STUDENTS IN CONTEMPORARY FILM AS CASE STUDIES

Cases have long been a mainstay of professional preparation in medical, legal, and business education. More recently, teacher education has been incorporating the use of cases in the curriculum. Teacher educators are reporting on the use of cases (Merseth, 1997; Wasserman, 1993), citing the benefits of improved problem-solving and professional decision-making as teachers develop effective practices and test out their own theories in classrooms (Yaxley, 1991). With the increased presence of media and technology in teacher preparation, 'virtual' cases via film and video are becoming more commonplace.

This report discusses the use of contemporary film in a course that is an elective in a Masters level professional development program for practicing K-12 teachers. In a summer course, a group of teachers examined how students and teachers are represented in contemporary film and the potential impacts such representations have in their own classrooms. During this course, the group viewed and critiqued films from a variety of genres, with a common thread being images of students and teachers. One film case analysis (Mr. Holland's Opus, 1995) is described below.

FILM AS CASES

In their review of research regarding the use of cases in teacher education, Sykes and Bird (1992) advocate the viewing and analysis of film 'cases' in order to understand the complex nature of classroom environments. Like traditional, text-based cases, films portray examples of students or teachers as characters who react in particular ways to particular events in their lives. Unlike text-based cases, however, film cases provide visual and easily accessible images of what teachers and students are like. The use of film cases makes visible the roles of 'student' and 'teacher' that are recognized and utilized within particular sociocultural contexts. These cases often tell stories that encourage the audience to extrapolate experiences and apply them to their own lives.

The film, "Mr. Holland's Opus," highlights a set of particular events from Mr. Holland's career as a music teacher. The timeframe is bounded in the film by his first day on the job, when he reveals to the principal that he has taken this teaching position only until he can support himself as a composer, and ends more than 20 years later with the school music program losing its funding and Mr. Holland's position being cut.

As part of the content of this Masters course, the group of teachers identified many cases of . . . in this film. There were numerous instances of professional practice that provided a context for lively discussions regarding effective pedagogy, classroom management, and interactions with colleagues. Mr. Holland's relationships with his wife, his deaf son, and his students were developed in ways that allowed viewers to inspect Mr. Holland's professional decisions and life choices. This film case invited the group of teachers to compare their own experiences with those of Mr. Holland. It also provided a shared experience from which to examine one teacher's intentions and consequences of his actions as they related to larger educational contexts.

Over time and with repeated encounters with such images, film audiences establish a set of commonly accepted attributes that can then be used as a standard by which to judge real-life teacher and student behaviors as either 'good' or 'bad'. An added dimension of film cases were revealed when the group applied the concept of 'mode of address' from film theory to their critique of films about teachers and students.

RESULTS

Using a framework borrowed from film studies, Ellsworth (1997) applies the concept of "mode of address" when using film cases as a component in teacher education. She identifies mode of address as a "provocative and productive tool" that makes explicit the often taken-for-granted assumptions about who an audience is. Further, in the process of making those assumptions explicit, discrepancies between the assumed audience and the actual audiences are revealed. There can never be true congruence between the two.

Films often portray cases of exemplary teachers or students, characters who are unique or out of the ordinary in some way. Unlike the realities of everyday classroom life, films about classrooms are created by directors and producers with particular and imaginary audiences in mind. The film Mr. Holland's Opus goes to great lengths to portray Mr. Holland as an ordinary person * one who realistically exhibits both positive and negative character traits and who faces difficult challenges in both his professional and personal lives. However, by the final scene, the film (i.e., the director and producer) asks the audience to consider Mr. Holland as a teacher who is extraordinary, even unique, and judge him to be both a 'good' teacher and a 'good' person.

Upon closer inspection of this film case, the teachers in this Education course concluded that the assumed audiences were teachers, parents, and the community at large. In identifying these groups, they also were able to make visible the discrepancies between the film's messages and the realities of educational practices.

For teachers, the film's message is intended to be one of hope. We can hope to become effective teachers, even though we may choose teaching as a fallback position until our preferred career materializes. There is always the hope that we can become committed to students and subject matter over time in the way that Mr. Holland did. In reality, the vast majority of teachers enter the classroom because it is their profession of choice.

The film sends a warning to parents and the community at large that the loss of even the most well-respected teachers can occur when school budgets are cut. Although programs come and go through various funding cycles, a more typical practice reassigns teachers with seniority or tenure (like Mr. Holland) to other programs. They don't lose their jobs.

The close inspection of the film Mr. Holland's Opus makes visible the discrepancies that are contained in popular media and the consequences of uncritical viewing. The teachers involved in this course discussion and analysis were astounded by the results of their analyses and how it broadened their perspectives about the role of media in their own lives and the lives of their students.

APPLICATIONS TO EDUCATION ENVIRONMENTS

Mode of address can serve as an effective tool for analyzing education cases as they are portrayed in films about teachers and students. In addition, it can also be a useful method of looking at instructional and curricular approaches that exist in education environments.

Who do the students think you, the teacher, are? Students enter a classroom with some perception of the role that they are to play and the role that they expect the teacher to take up based on their exposure to students and teachers in the films that they see. Is Mr. Holland a 'typical' teacher? What are the consequences of setting him up as a representative 'good' teacher? If a group of students were to critique this film in the same way that the practicing teachers did, what set of assumptions would be revealed?

Conversely, who do you, the teacher, think your students are? Are the few student exemplars depicted in the film 'typical' students? Effective teaching models highlight the importance of knowing your students (the 'audience'). An effective teaching-learning environment must acknowledge and account for such discrepant perceptions that exist within any given group of teachers and learners.

The application of analytical methods employed in the field of film theory offers educators a model that can be used to evaluate all potential curriculum materials as well. Who does the author of a particular curriculum think the students are? Who are the teachers that will use this curriculum? The assumed answers to these questions greatly influence the content of a curriculum Like film directors, curriculum developers must identify an assumed audience as a precursor to the curriculum work itself. It is very unlikely that this assumed audience is congruent with the actual teachers that enact the curriculum and the students that are expected to learn from the curriculum. Too often, curriculum is chosen by state and district committees with little or no understanding of the philosophical or political stance of the curriculum developers.

In each of these circumstances, the assumed audiences of film directors and curriculum developers are imaginary and not closely aligned with most students' and teachers' experiences as they live out the realities of daily classroom life. However, the line between fiction and reality blurs as the controversy continues to identify film and other media as influential contributors to social control and change.

III. ELECTRONIC PORTFOLIOS: INTERGRATING AND ASSESSING CASE STUDY WITH CLASSROOM WORK AND FIELDWORK EXPERIENCES IN GRADUATE EDUCATION

Using with case studies in various fields of education has become more widespread in the past decade, especially through the work of Merseth (1997) and Nieto (1992, 1996, 2000); yet, one of the continuing pedagogical challenges is the need for the integration of the case study with other curricular work, and in addition, employing some means of assessing the knowledge, skills and sensitivities gained from the case study and case study integration use. This report out is an attempt to widen the knowledge of the case study use through addressing this challenge.

This section will explore the basic premise of the use of the case study to develop better understanding of ethnic and racial communities for students to use in professional education. It will, first, describe utilizing case studies and then, review five of the findings of that usage. Next, the report will briefly examine the electronic portfolio, and report out aspects of its brief evolution/history. Thirdly, this report will describe the use of the electronic portfolio in this instance, followed by an examination of the conclusions that are reported as emerging data. Finally, there are comments aimed toward further research and use of the electronic portfolio as an assessment tool for case study work in education. The clear goal of this work is to improve the use of graduate work aimed at developing educators who are effective in diverse communities and the schools and educative institutions of those communities.

USING THE CASE STUDY FOR EXPANDING CONTACT WITH DIVERSE EDUCATION CONTEXTS

While it appears clear that a major issue in the preparation of teachers and other educators in the United States and elsewhere has lay with the dissonance between the ethnicity/race of those educating (teachers and other educators as professionals in the workforce) and the ethnicity/race demographics of our students, efforts to address this issue have led us to conclude that while educators need not, themselves, have come from the same ethnic/racial backgrounds as our students, in order to perform effectively in our poly ethnic and multi racial society. Yet, they must have a critical threshold of experience that allows them to understand students' cultural backgrounds, and obtain skills that will change their behavior from the ethnocentric to a level of cultural pluralism in their roles of mediating educative environments for all students. The historical record is clear that where the ethnic and racial distance, dissonance and friction is unadjudicated by pedagogy-changing life experiences, the educational results will most likely be discriminatory, prejudicial, poor teaching and poor allocation of educational service delivery, the displacement of disenfranchised students and their parents, families and communities, and the smothering of educational and economic aspirations of whole communities (Chavkin, 1993; Banks, 1994; Lynch, 1986; Nieto, 1992, 1996, 2000).

The case study has entered practice as one means to address this issue-an intervention that attempts to have education students seek out and make meaning of culture contact and other situational experiences that come from outside of the boundaries of their race, ethnicity, situational life experiences (Nieto, 1992; Henry, 1999 A). This author used case studies previously (Henry, 1996) to provide contact (not sole contact) with culturally plural and urban settings. From that usage, five findings were found to be relevant. It was found that case studies can improve the education of teachers and other education personnel because their use impacts:

a) improving the knowledge about cultural settings when students have limited accessibility to that setting,
b) increasing understanding of the deep seated cultural complexities of human behavior in educational settings,
c) helping prospective teachers make emotional empathetic connection with the lives of diverse students and with their professional educational situations,
d) the ability to examine and dissect the complex relationships between educational institutions and parents, families and communities, and
e) providing external perspectives to education students re-examination of their own cultures and how their cultural behavior affects the educational progress of their students (Henry, 1999B)

With this information on case studies, it was decided that the next step should include both an integration of the case study with other curricular work such as fieldwork and readings, and an assessment of how well students were able to develop educative growth as a result of the use of integrating case study into other classroom work. This consideration led to the use of the electronic portfolio as a means of advancing this work another step.

THE ELECTRONIC PORTFOLIO

The use of the electronic portfolio in education is rather new. It is so new that a recent (February 2000)ERIC national document search revealed no entries for papers describing research on the use of electronic portfolios. This author, working with colleagues at DePauw University during 1998-99, developed an undergraduate curriculum revision that employed the electronic portfolio as an essential means of assessing the student's growth and as a means of informing the quality control process for recommendation for licensure (Birt, Stockton and Henry, 1999). While completing that work the author decided to pilot the electronic portfolio as an assessment tool in a graduate class at Portland State University. The use of the portfolio was designed to assess the student's understanding of major trends in the field, his/her skills in the analysis and interpretation of scholarly and popular reading materials, his/her familiarity with skills involving the presentation of ideas, and most importantly the integration of the class fieldwork, use of case studies, and readings into a cogent expression of views, educative growth, and analysis.

Students in a graduate course: Cultural Pluralism and Urban Education, were asked to demonstrate that they:

a) have read the scholarship in the field of cultural pluralism,
b) have a masterly level of understanding of the major trends in cultural pluralism scholarship,
c) can write and interpret scholarly and other written materials in the field of cultural pluralism before an audience of their peers,
d) have familiarity with at least one mode of the presentation of ideas (for analysis and interpretation), and
e) have the skills to utilize the electronic media as a means of presenting their own ideas in a coherent cogent collection of analysis and interpretation of a level expected of a graduate student in education.

None of the graduate students in this class were working toward teaching licensure or state certification and several had already been employed as education professionals. The students was informed that they might utilize the following formats: CD ROM disc, video, audio visual combinations, PowerPoint or any other similar format in consultation with the instructor. Students were given ten weeks to assemble the electronic portfolio and twenty minutes to present it to their peers. A copy of the portfolio was turned in for the instructors review and assessment after the presentation. With ten students in the class(nine participating), three students did PowerPoint presentations, one student had a PowerPoint and video demonstration; another had a PowerPoint and audio demonstration, two students developed Internet web sites, one student developed a video, and one student had a multimedia PowerPoint, video, audio and overhead projector presentation. At the end of each presentation there was a class critique and discussion about the process of developing the portfolio. Feedback from the students at the end of the course included this comment: " Most difficult to figure out how to do was the electronic portfolio. That really got me to think about the whole course. That's a good way to bring it together." (student respondent to the teacher's own course evaluation). Student learning included the following:

1. achieving the learning objectives of the course
2. students having a product that they could use in other settings
3. students and the instructor used the product as an assessment of the educative growth (with students responding that they could view a concrete example of developing conceptual knowledge)
4. an increase in the use of multi methods of graduate student assessment and conceptualizing the educative growth process.

RESULTS AND CONCLUSIONS

This has led to several conclusions about the use of the electronic portfolio to assess the use of case studies and the integration of case study work with fieldwork and classroom work and readings. Using the electronic portfolio to assess the learning from case studies offers the student and the instructor unique opportunities. These include:

1. exercising latitude and choices in the assessment means and in choosing (by the student) what will be assessed
2. providing the instructor with more accurate description of the effectiveness of micro-interventions, which leads to better diagnosis and improvement of instruction and better diagnosis of the individual students patterns for learning,
3. providing a sound means of assessing curriculum goals and objectives, and
4. the instructor's modeling sound educative practice including a transformative education model of including the student's own socio-historical contexts.

FUTURE RESEARCH AND FURTHER USE

If the case study is to an effective tool of graduate pedagogy, it must be evaluated in the context of the class work that it functions to illuminate and the total objectives for the instruction. Measuring human educative growth is very difficult. Standardized tests have largely failed to measure educative growth mostly measuring test taking skills and the ability to respond along narrow cultural racial and gender lines to preset expectations regardless of whether those meet the needs of the students. Even more difficult have been efforts to assess the development of educators who are effective in diverse classrooms and with diverse communities. The use of portfolios offers a plausible tool for this complex work. While that statement is cautiously optimistic, further research might pursue the design and similar designs to test the effectiveness of the use of case study and case study utilization.

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MANAGING DIVERSITY IN COLLEGES OF AGRICULTURE: COMPLEX DEMANDS AND OPPORTUNITIES

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Abstract

This paper addresses how U.S. colleges of agriculture are managing the complex demands of an increasingly diverse society. Efforts to enhance cultural diversity are examined. Minority enrollments and graduation rates are contrasted to those of the general student population. Participation and success rates of minority students were lower than that of majority students. At the University of Georgia, African-American participation and success rates have fallen behind their majority counterparts. Finally, challenges and opportunities by the University's College of Agricultural and Environmental Sciences are presented. The College's action plan for enhancing cultural diversity is presented along with a progress report of programs and activities.

KEYWORDS: Cultural Diversity, Higher Education, Colleges of Agriculture, Managing Change

PROBLEM SETTING

Colleges of agriculture in the United States were an integral part of the 1862 and 1890 Morrill Acts which established the public system of Land-Grant Universities. The primary mission of these colleges was to improve the quality of life in America by giving common citizens access to higher education. Well over a century later, the average citizen knows little about these historic acts and the contributions which colleges of agriculture have made to advance democracy and economic development. As public scrutiny of higher education intensifies, the public is questioning whether colleges of agriculture are fulfilling their democratic mission of giving all citizens access to higher education. Increasingly, colleges of agriculture are being criticized for their lack of cultural diversity in their educational programs.

This paper presents a case study of cultural diversity in colleges of agriculture. An overview of cultural diversity in undergraduate programs across the United States is presented, followed by some highlights of The University of Georgia's rather controversial history in achieving diversity. Finally, strategies for achieving cultural diversity in the University's College of Agricultural and Environmental Sciences are presented.

Since its inception, WACRA has promoted understanding and collaboration between and among disciplines, international partners and cultures. Often, cultural exchange and awareness are defined in global contexts as WACRA brings together professionals from various nations in places of rich cultural heritage. Yet, there are many opportunities for cultural exchange and enrichment within our own countries and institutions. Until we recognize and celebrate cultural differences at home, we cannot fully appreciate and comprehend cultural differences in a global context. This paper speaks to the growing importance of cultural diversity in the enrichment in our personal and professional organizations. In the spirit of this conference, this paper addresses how institutions of higher education are responding to and managing the complex demands of an increasingly diverse society.

DIVERSITY DEFINED

Diversity in higher education refers to differences among people with respect to age, class ethnicity, gender, physical and mental ability, race, sexual orientation, spiritual practice, and other human differences [Strategic Planning Task Force]. Because of demographic and historical differences across regions and institutions the focus of diversity differs across regions and institutions. Central to the issue of diversity is whether the group, organization or institutions include or support individuals that represent the larger community served by these entities. The focus of diversity also takes on a historical perspective when certain groups have been systematically excluded from participation. For institutions of higher education in the Southern United States with its large African-American population and its agrarian roots, diversity has focused largely on race and to a lesser extent on gender. Hence, this paper will focus primarily on participation of African-Americans in higher education and in colleges of agriculture.

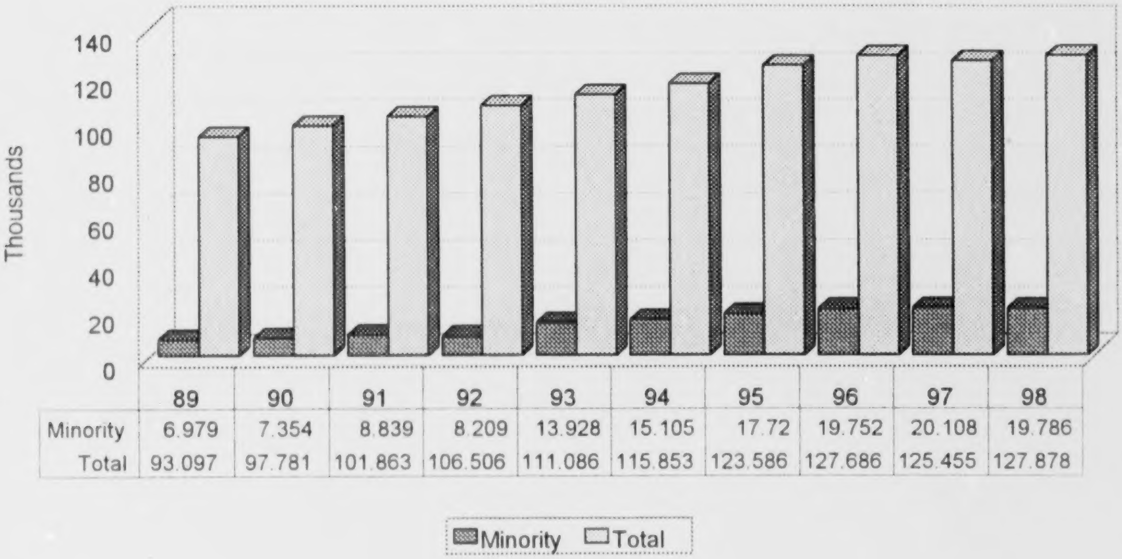
RATIONALE

While the benefits of diversity in democratic organizations seem rather obvious, a rationale for promoting diversity in higher education merits some discussion. With the presence of Historically Black Colleges and Universities (HBCUs) in the South, why concern ourselves with promoting diversity among Historically White Colleges and Universities (HWCUs)? The answer has academic, social, ethical and political dimensions. First and foremost, diversity enriches the quality of the educational experience for the majority and minority student population. Much of what students learn in college are life skills that take place outside the classroom. Students learn about themselves and the world around them by interacting with students and faculty who are different from themselves. Second, interactions with diverse groups better prepares students for life-long learning. Students graduate from Southern institutions and enter a world that is much more diverse than most college campuses in the South. Learning to work and appreciate diverse environments are essential to working in today's diverse workplace. Third, from a social perspective, students who experience and understand the value of diversity in college develop citizenship skills that serve the larger society. A society that subsidizes a student's higher education, expects that student to utilize their college education to benefit the larger society. Fourth, from an ethical perspective, public institutions have an obligation to serve all citizens. Providing public educational opportunities to citizens of diverse backgrounds is morally correct. Fifth, from a political and perhaps, a selfish perspective, promoting diversity has become politically correct and necessary for survival as minorities gain political power in government. Institutions that lack diversity will face increasing difficulty competing for political support and public funding.

NATIONAL PERSPECTIVE

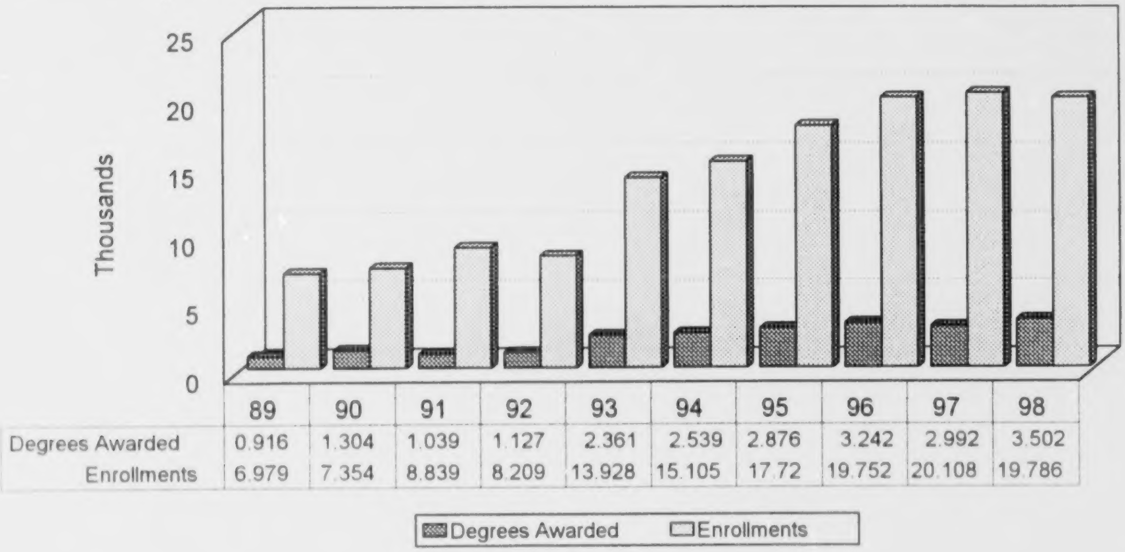
Given the perceived benefits of diversity, colleges of agriculture have promoted diversity in student enrollment. Data on undergraduate enrollments in colleges of agriculture across the U.S. from 1989 to 1998 are summarized in Figures 1-2 [FAEIS Fall 1998 Enrollment]. Included in these data are the historically white colleges of agriculture located at 57 1862 Land-Grant Institutions and at 64 non-Land-Grant institutions across the U.S. and 16 historically Black colleges of agriculture at 1890 Land-Grant Institutions located primarily in the southern U.S. Data on undergraduate enrollments show that minority enrollments in colleges of agriculture grew from 6,979 or 7.5 percent of total enrollments in 1989 to 19,786 or 15.5 percent of total enrollments in 1998. However, minority enrollments at the historically white 1862 colleges of agriculture grew modestly from 5.7 to 7.8 percent. These data indicate that while minority enrollments in colleges of agriculture have increased, the growth at 1862 Institutions continue to lag behind the national average.

FIGURE 1
HISTORIC BACCALAUREATE ENROLLMENT IN U.S. COLLEGES OF AGRICULTURE, 1989-98



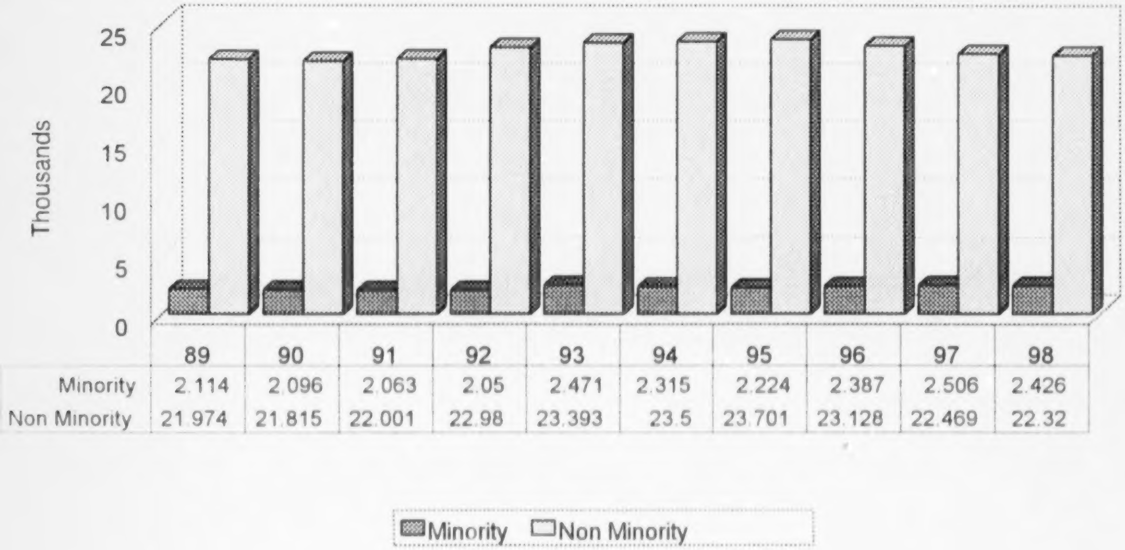
	89	90	91	92	93	94	95	96	97	98
Minority	6.979	7.354	8.839	8.209	13.928	15.105	17.72	19.752	20.108	19.786
Total	93.097	97.781	101.863	106.506	111.086	115.853	123.586	127.686	125.455	127.878

FIGURE 2
BACCALAUREATE DEGREES AWARDED TO MINORITIES AND MINORITY ENROLLMENTS IN U.S. COLLEGES OF AGRICULTURE, 1989-98



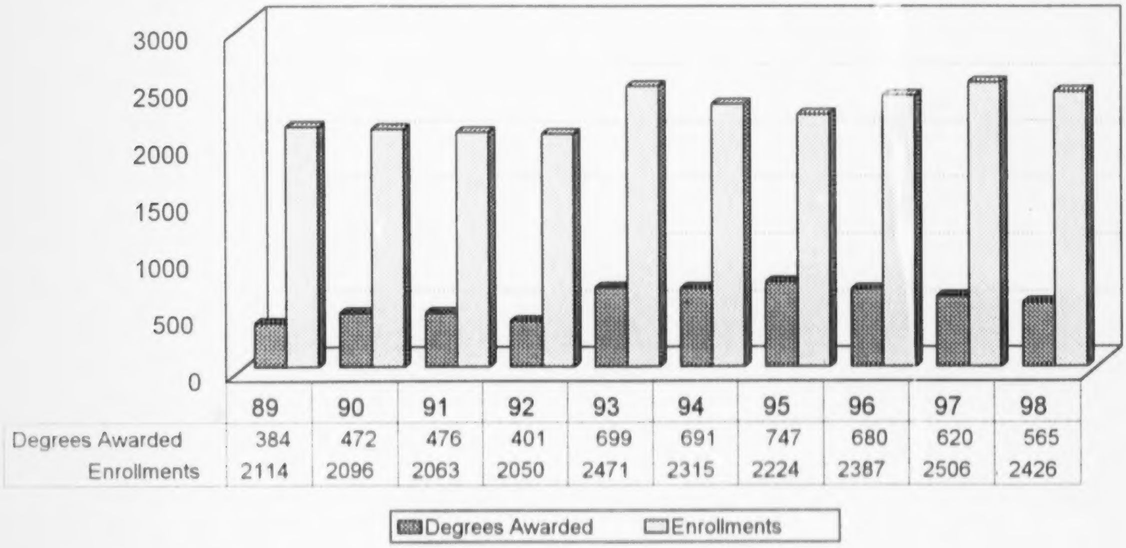
	89	90	91	92	93	94	95	96	97	98
Degrees Awarded	0.916	1.304	1.039	1.127	2.361	2.539	2.876	3.242	2.992	3.502
Enrollments	6.979	7.354	8.839	8.209	13.928	15.105	17.72	19.752	20.108	19.786

FIGURE 3
HISTORIC MS & PHD ENROLLMENTS IN U.S. COLLEGES OF AGRICULTURE, 1989-98



	89	90	91	92	93	94	95	96	97	98
Minority	2.114	2.096	2.063	2.05	2.471	2.315	2.224	2.387	2.506	2.426
Non Minority	21.974	21.815	22.001	22.98	23.393	23.5	23.701	23.128	22.469	22.32

FIGURE 4
GRADUATE DEGREES AWARDED TO MINORITIES AND MINORITY ENROLLMENTS IN U.S. COLLEGES OF AGRICULTURE, 1989-98



	89	90	91	92	93	94	95	96	97	98
Degrees Awarded	384	472	476	401	699	691	747	680	620	565
Enrollments	2114	2096	2063	2050	2471	2315	2224	2387	2506	2426

Regarding degrees earned, minority students earned 916 or 0.5 percent of baccalaureate degrees earned from colleges of agriculture in 1989 [FAEIS Degrees Awarded]. By 1998 baccalaureate degrees earned by minority students had increased dramatically to 19,786 or 12.9 percent of degrees awarded. Despite these improvements, the share of degrees (12.9%) awarded to minorities continues to lag behind their share of enrollment (15.5%) during this same period. These data suggest that while the number of minorities receiving baccalaureate degrees has increased dramatically during the study period, they have yet to achieve a comparable share of baccalaureate degrees awarded.

Minority participation in colleges of agriculture at the graduate level is shown in Figures 3-4. The successes that have been achieved at undergraduate level are less apparent at the graduate level. In 1987 minority students represented 8.8 percent of students enrolled in masters and PhD programs but accounted for only 6.1 percent of graduate degrees earned. In 1998 minorities comprised 9.8 percent of graduate enrollment but claimed only 8.1 percent of graduate degrees earned. These data suggest that while minority participation in graduate programs has increased, their success rates have not kept pace with that of non-minority groups. These findings are especially disturbing given the importance of advanced degrees in achieving positions of leadership and influence. Reasons for the failure of minority graduate students to achieve comparable graduation rates were not fully explored in this research.

THE UNIVERSITY OF GEORGIA EXPERIENCE

Like many educational institutions in the U.S. region known historically as the Deep South, the University of Georgia's legacy to achieve diversity has been clouded by social and political strife in the region. The Southern legacy in cultural diversity can be described with a series of events and milestones beginning with the African-American slave trade in the post-colonial period, followed by a horrific Civil War, the abolition of slavery, voting rights, social apartheid, segregation, separate but equal, integration, school bussing, race relations, affirmative action and cultural diversity. The region has progressed from a period when laws expressly prohibited the education of African-Americans to one in which public institutions pro-actively recruit African-American students and faculty. Ironically, the founders of the State of Georgia were opposed to slavery on the grounds that slave ownership would impede long-term economic development and would create a class of lazy and unproductive farmers. The State actually enjoyed an initial respite from slavery until giving in to economic and social pressures of the region.

The University of Georgia was chartered in 1785, was established in 1801 and, as was typical of institutions of higher education in the 19th century, was attended exclusively by white males for more than a century. The University's first female student enrolled in the College of Agriculture in 1918. Another 43 years would pass before the first African-American would enroll at the University. The people and events associated with integrating the University are noteworthy and merit some discussion.

Through political pressure at the Federal level, arrangements had been made for two African-American students, Charlayne Hunter and Hamilton Holmes to enroll at the University in January 1961. Amid public outcry, then Governor Vandiver threatened to cut state funding of the University, citing a state appropriations act banning the use of state money for the operations of integrated schools. In response, federal Judge W.A. Bootle issued a temporary injunction preventing the Governor's actions. Meanwhile, some 300 students and newsmen watched as Hunter, accompanied by a university official, entered the journalism school to complete her schedule of classes. "While numerous 'good natured cheers' went up from the crowd, there were no acts of violence of discriminatory words," thanks in part to efforts of an astute Dean of Men, William Tate [Athens Daily News and Banner Herald]. Rumor has it that Dean Tate strategically postponed Hunters's arrival on campus until the more violence-prone demonstrators consumed enough alcohol to pacify their threatened resistence. Groups that opposed integration argued that African-Americans lacked the capacity to learn college-level subject matter. Ironically, Hamilton Holmes would graduate from the University and later become a medical doctor. Charlayne Hunter, now Charlayne Hunter-Gault, went on to become the most recognized and accomplished African-American female journalist in today's media.

African-American enrollment at the University would increase gradually in the years that followed, although the number of African-Americans employed in janitorial and service jobs continue to exceed student enrollments. Increases in African-American enrollments were due initially to the recruiting efforts of University athletic programs but have since been expanded to the larger student body. African-American freshman applicants, admissions and enrollment for the period 1985 to 1999 are shown in Figures 5-6 [Office of Admissions]. These data indicate that despite a steady increase in the number of African-Americans applying to the University's freshman class, increases in acceptance rates have shown only modest increases while enrollments have changed little since 1991 (Figure 5). When compared to freshman class data for the University, shares of African-Americans declined from applications to acceptances and then again for enrollments. Only in 1994 was the share of enrollment (11.9%) greater than the share of applications (11.7%).

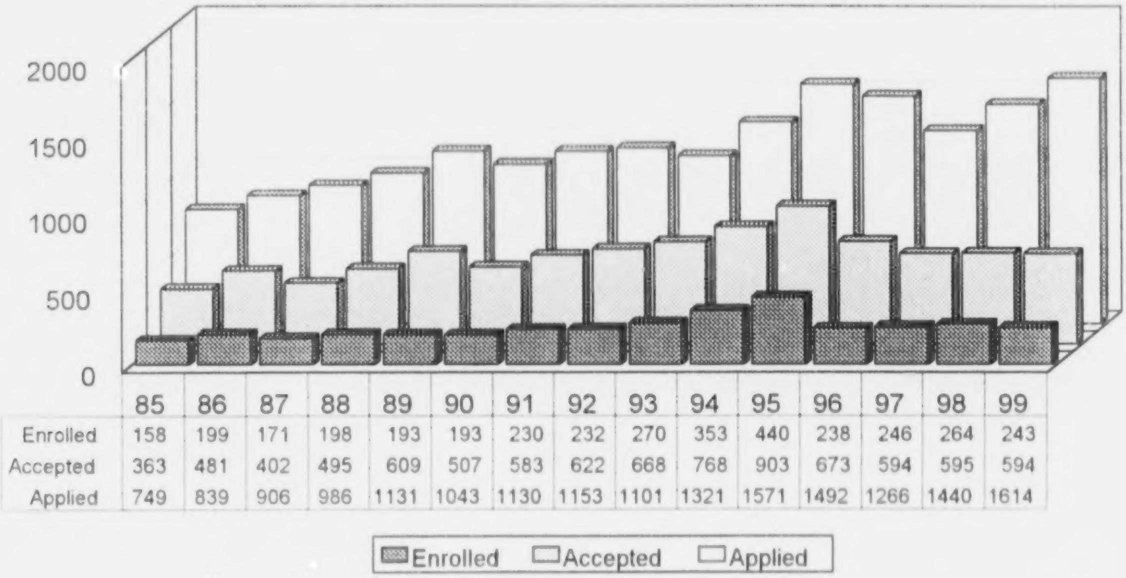
The University's poor performance at diversifying its freshman class can be attributed to several factors. First, University entrance requirements are based on a combination of grade point average and standardized test scores on the Scholastic Aptitude Test (SAT). Historically, African-Americans and other groups have been disadvantaged on standardized test scores because of poor primary and secondary schooling. Hence many that apply, fail to meet the University's standards for admission. Second, in 1993, the State of Georgia established the HOPE scholarship program which paid the college tuition for students who maintained a "B" average in high school. Many students who might have enrolled in colleges out-of-state, have elected to apply to the University, boosting entrance requirements and standardized test scores to unprecedented levels. By 1999 the entering freshman class had an average grade-point-average of 3.7 and an average SAT score approaching 1200. Third, because the number of African-Americans on campus is low, African-American support networks have been slow to develop, making the University less hospitable for people of color. For many African-Americans, the University is not viewed as a minority friendly campus. Fourth, and perhaps to a lesser extent, Atlanta (Georgia's Capitol) is home to three of the nations's top four historically black colleges and universities (Morehouse, Spellman and Clarke Atlanta), giving African-Americans who would meet the admission standards of the University, some attractive, albeit, expensive alternatives.

To increase the success rate of African-American and other under-represented applicants, the University modified its admissions policy to base 10-15 percent of admissions decisions on a "total student index" which included race, gender, residency, the child of alumni or the first in the family to attend college [Hannon]. In 1997, three white students who had been denied admission to the University filed a law suit claiming reverse discrimination. The University's reliance on grade-point-average had favored female applicants who comprised up to 60 percent of the entering freshman class at the end of the 1990s. Similar law suits were filed on behalf of female students who claimed that they were denied admission to the University because they were white and female [Digest]. For the time being, the University had maintained their admissions policy in the face of legal threats and public criticisms. The legal outcome of the University's litigation will have far reaching impacts on affirmative action programs in higher education and efforts to achieve diversity at the University of Georgia and elsewhere. This litigation will also threaten the willingness of colleges and universities to make their admissions criteria explicit and transparent to the public.

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

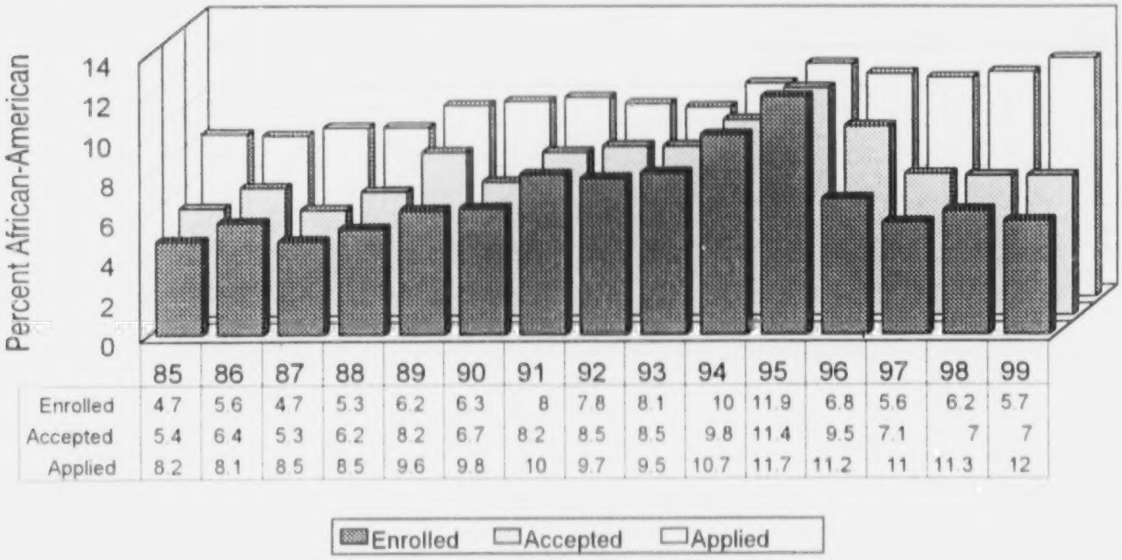
Against the backdrop of University's diversity initiatives, the College of Agricultural and Environmental Sciences has faced additional challenges. The College's difficulties in recruiting African-Americans can be attributed to several factors. First, admissions standards and decisions are established at the University level. Students must first be admitted to the University before they can be admitted to the College, prohibiting special considerations and needs of colleges in the admissions process. This centralized admissions policy is thought to not only disadvantage the College efforts to recruit minorities but students from rural areas, as well. Historically, rural primary and secondary schools have been poorer in quality than their suburban counterparts. Second, colleges of agriculture evoke images of traditional agriculture with little appeal to African-Americans who for many generations toiled to escape the injustices and hardships of farming. Third, the College lacks support groups for African-American students and has few African-American faculty members and administrators to serve as positive role models in student recruitment.

FIGURE 5
AFRICAN-AMERICAN APPLICATIONS, ACCEPTANCES AND ENROLLMENTS AT THE UNIVERSITY OF GEORGIA, 1985-99



	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Enrolled	158	199	171	198	193	193	230	232	270	353	440	238	246	264	243
Accepted	363	481	402	495	609	507	583	622	668	768	903	673	594	595	594
Applied	749	839	906	986	1131	1043	1130	1153	1101	1321	1571	1492	1266	1440	1614

FIGURE 6
AFRICAN-AMERICAN SHARE OF FRESHMAN APPLICANTS, ACCEPTANCES AND ENROLLMENTS AT THE UNIVERSITY OF GEORGIA, 1985-99



	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Enrolled	4.7	5.6	4.7	5.3	6.2	6.3	8	7.8	8.1	10	11.9	6.8	5.6	6.2	5.7
Accepted	5.4	6.4	5.3	6.2	8.2	6.7	8.2	8.5	8.5	9.8	11.4	9.5	7.1	7	7
Applied	8.2	8.1	8.5	8.5	9.6	9.8	10	9.7	9.5	10.7	11.7	11.2	11	11.3	12

Despite these challenges, the College has developed a growing commitment to cultural diversity. The remainder of this article will discuss the College's proposed efforts to achieve cultural diversity among its students, faculty and administration.

The College of Agricultural and Environmental Sciences' Strategic Plan identified cultural diversity as one of the top ten critical issues facing the college [CAES Strategic Plan]. The College's vision for diversity noted that "True appreciation of diversity is an attitude that requires a change in culture. The College should value diversity by encouraging mutual respect, acceptance, teamwork and productivity among people of many different backgrounds and descriptions." A Cultural Diversity Task Force was appointed by the College to develop a comprehensive action plan that will guide the College in its efforts to foster and enhance cultural diversity. While the Task Force adopted a broad definition of diversity to include age, gender ethnicity, physical and mental ability, socioeconomic status and spiritual practice, ethnicity was identified as the most important challenge to the College. Specifically, the under-representation of African-Americans in all College-level activities was viewed as the most pressing deficiency in the College's diversity efforts. While African-Americans comprised 28.4 percent of Georgia's 1997 population, they comprised only 3.6 percent of undergraduate enrollment, 2.9 percent of graduate enrollment and 1.6 percent of faculty in the College. Clearly, African-Americans have yet to fully participate in the College educational programs to any significant extent.

In response to this deficiency, the Task Force developed a set of recommendations that in total, represented a comprehensive action plan for enhancing and fostering diversity in the College. A guiding objective of the action plan was for College enrollments, faculty and staff to more closely mirror the demographic diversity of the State. Four umbrella strategies were developed as follows [Action Plan]:

1. *Commitment to Pluralism* - The College will incorporate pluralism as an integral part of its mission and vision and strive to achieve and sustain pluralism.
2. *Commitment to Diversity* - The College will enhance and sustain the diversity of its student body, faculty and staff.
3. *Environment for Diversity and Pluralism* - The College will maintain a physical, psychological and emotional environment that fosters and sustains pluralism and diversity and eliminates discrimination at all levels.
4. *Participation* - The College will include members of diverse groups, specifically African-Americans, in all aspects of the College and in establishing policies and decision making that shapes the College and its programs.

Specific programs and activities for enhancing and sustaining the diversity of its student body, faculty, staff and academic programs are outlined below.

RECRUITMENT

Pre-undergraduate

Increasingly, primary and secondary school students living in suburban and urban areas have little exposure in agriculture and are generally unaware or misinformed about educational programs and career opportunities in colleges of agriculture. Many high school counselors view careers in agriculture as being vocationally rather than academically oriented. Hence, a strategy of recruiting undergraduates in colleges of agriculture must begin at the pre-undergraduate level. In recruiting terminology, this process is known as "pipelining." Specific programs and activities for cultivating an interest in agricultural and environmental science careers are as follows:

1. Support the development of agricultural science magnet schools in minority school districts.
2. Establish a "Summer of Excellence" program.
3. Develop a Co-op program that engages agribusiness partners.
4. Develop a student apprenticeship program.
5. Develop teacher internship programs for high and middle school science teachers.
6. Develop a mentoring program for middle and high school students.
7. Engage minority college students in recruitment efforts.

8. Promote junior chapters of MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences) in local high schools.
9. Create a high school science teachers' support network to provide assistance in science fairs and curricula development.

Undergraduate

In recent, years public concern and expectations for undergraduate education has increased. However, many African-Americans do not perceive careers in agriculture as viable choices. Many students and parents from non-agricultural backgrounds are poorly informed about the diversity of applied science programs and careers related to agriculture and the environment. Activities to enhance undergraduate enrollments and the undergraduate experience for minorities include:

1. Enhance information delivery to junior college advisors.
2. Teach the College's courses in feeder schools.
3. Develop articulation agreements with feeder schools to promote and facilitate the transfer process.
4. Highlight minority opportunities in recruitment packages.
5. Establish internship and course credit co-op programs.
6. Weave cultural diversity topics into current courses.
7. Develop new courses with cultural diversity emphasis.
8. Refer students to courses outside the college.
9. Promote and support campus-wide chapters of MANRRS (Minorities in Agriculture, Natural Resources and Related Sciences).

Graduate Students

Colleges with low African-American undergraduate enrollments cannot take a passive role in graduate student recruitment. These colleges must cultivate the interests of their undergraduate students and actively recruit at other institutions. Programs to recruit graduate students include:

1. Establish and support undergraduate research experience among African-American students.
2. Strengthen recruitment efforts at and partnerships with Historically Black Colleges and Universities.
3. Recruit at targeted national technical association meetings.

Faculty

A major obstacle to recruiting minority undergraduate and graduate students into colleges of agriculture is the absence of faculty role models. Recruiting minorities continues to be a major challenge facing not only colleges of agriculture but higher education in the U.S. [Fields]. For many positions, colleges consider themselves fortunate to receive minority applicants. To better compete for minority faculty, the College should:

1. Recruit post-doctorate (non-tenure track) appointments.
2. Broadly define advertised faculty positions.
3. Promote sabbatical visits by minority faculty and faculty exchange programs with Historically Black Colleges and Universities.

Staff

At many institutions, staff members play an important support role in the teaching mission of the university. Secretaries and program specialists are often the first point of contact for many of our undergraduates. Programs to enhance the recruitment of minority staff members include:

1. Advertise positions with minority churches, organizations and media outlets.
2. Help spouse find employment.
3. Offer opportunities for professional development and career advancement.

Retention

Efforts to enhance cultural diversity through student, faculty and staff recruitment may not be effective in the absence of a pro-active retention program. Minorities may encounter problems adjusting to a predominantly white institution. Programs to improve retention include:

1. Establish support networks for students, faculty and staff.
2. Establish external mentoring programs for students, faculty and staff.
3. Establish collaborative research, teaching and extension programs in and outside the college.

PROGRESS REPORT

The list of College activities and programs to enhance diversity is quite ambitious. The speed and effectiveness to which these activities and programs can be implemented remains to be seen. Also, the extent to which some of these programs, once implemented, will contribute to diversity is unclear.

As of this writing, the College has initiated a number of programs and activities based on Task Force recommendations. For the most part, these programs are in their infancy and assessments of program effectiveness would be premature at this time. A list of these programs include:

1. Minority recruitment and enrichment scholarships.
2. Georgia Research Apprenticeship Program (GaRAP).
3. George Washington Carver AgriScience Magnet High School.
4. Partnerships with the state's Historically Black Land-Grant University (Ft. Valley).
5. Creation of a College level Cultural Diversity Task Force.
6. University Freshmen Year Experience.
7. University cultural diversity requirement.
8. College-wide Black History Celebration.
9. Minority participation in College ambassadors' program.
10. Minority student forums.
11. International study abroad programs.
12. Service learning projects and community involvement.

Given student and faculty numbers, the impact of these programs may seem rather disappointing. While the numbers have changed little, the existence of a college-wide plan to enhance diversity in the College is a major achievement. For the College to admit publically that diversity is essential in defining a great College and University is a major milestone given the status that has been afforded to African-Americans at the University and in the larger community [Glickman].

CONCLUSION

In the abstract, the concept of cultural diversity has a certain amount of intellectual appeal. The notions on diversity, tolerance and inclusion are integral parts of the democratic process. Democracies thrive on cultural differences and the creativity of ideas which spring from a diverse citizenry. Yet, the U.S., Georgia, The University and the College have struggled for centuries to achieve cultural diversity. When viewed from abroad or in a historical perspective, critics might suggest that the institutions described in this paper may have overacted to issues of diversity. Still, in a world where "ethnic cleansing" and genocide are horrors of the not-to-distant past, the need to create institutions that recognize and manage diversity has special a sense of urgency.

In practical terms, cultural diversity involves a personal commitment by individuals and institutions. At the heart of cultural diversity is creating a culture of awareness and sensitivity. Institutions of higher education can provide an opportunity and a public forum for designing, promoting, implementing, and assessing cultural diversity. The lasting contribution which institutions of higher education can make to the larger society may well depend upon how well they manage the complex educational demands of an increasingly diverse society.

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THE APPLICATION OF THE ENTREPRENEURIAL CREATIVE CASE METHOD

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Abstract

At the Sixteenth International WACRA Conference in Caceres, Spain 1999, Professor Janko Kralj reported about an innovative approach to teaching entrepreneurship and management through entrepreneurial creative cases. This approach provides teamwork or individual work for students who are assigned their task of designing venture ideas to establish a fictitious enterprise.

The elaboration is in the form of a business plan and the design of basic organizational policy (policy of an enterprise) including concept, mission, vision, objectives, goals, strategy and structure. This innovative approach has been widened to include the design of a product that will be produced and sold. The participants assemble a physical prototype of a product made of toy bricks, or they shape it in plasticine, and provide a technical drawing, make a prospectus (a flier to promote the product), prepare a calculation of its costs and price that will be later incorporated into the business plan.

The authors of this paper, lecturers at the College of Management in Koper,Slovenia, are carrying out this idea in Professor Kralj's courses of "*Fundamentals of Management*" and "*Decision-making and Managing Affairs*" as well as introducing it to other courses (Marketing etc.).

KEYWORDS: Entrepreneurial creative case (establishing a new enterprise based on prototype of the product), live case.

INTRODUCTION

Slovenia is a central European country neighboring Italy, Austria, and Hungary and Croatia. The college we come from is located in Koper, which lies along the Slovene coast. Koper is Slovenia's only port and is its "window on the world". It is an old town with many interesting sites.

College of Management in Koper, which is one of the first private colleges in Slovenia, was established in 1995. It is an independent state-funded high education institution. The study programme is up-to-date and internationally comparable. It comprises 3-year undergraduate courses as well as 2-year graduate specialization courses. In the academic year 1999/2000, the teaching faculty at the College consists of 26 part-time and 25 full-time lecturers (and instructors). Most of them have proven a track record in research and education. Many of them are industrial experts, therefore they are able to understand the needs of employers and employees today, which is of great importance. Thus we can provide qualifications that will help our students to get jobs and develop their careers.

The students of College of Management can attend the undergraduate courses:

- on a full-time or
- part-time basis.

The full-time students attend all the lectures, seminars and workshops, as well as the compulsory business internship; while the part-time courses have been reduced to a minimum of 30% of their regular duration.

The postgraduate courses are offered only to part-time students (e.g. Management in Education was designed together with the Manchester Metropolitan
University).

The programme structure is based on the model of organizational policy by Professors Janko Kralj and Mitja Tavcar (the Dean of College of Management), and includes the organizational objectives and goals as well as the strategies for achieving them. These strategies consist of organizational activities (quantitative and qualitative), organizational structures and systems, and organizational resources. The teaching-learning process is built on proactive and interactive methods and lays great emphasis on the analysis of business case studies.

In the academic year 1999/2000 there are 436 full-time students and 855 part-time students, attending our college. The part-time courses have been carried out on five locations around Slovenia. We also accepted the European Credit Transfer System of study for each subject.

Students' participation and involvement in group work and workshops are the most important part of their study. Therefore they are organized in small groups, providing the conditions and atmosphere for teamwork.

Since its beginning the College of Management has been striving for excellence in terms of expertise, as well as up-to-date teaching methods.

ENTREPRENEURIAL CREATIVE CASES

The method is named "Kralj's method of a creative case" after Dr. Janko Kralj, a Professor emeritus with an international reputation in the field of interactive / proactive methods. Professor Kralj is also a member of WACRA Advisory Board. His method represents an innovative approach to teaching entrepreneurship and management, especially in the live case / and in an original conceiving of creative cases. The method represents an innovative way of learning and teaching in this field. Professor Kralj has been involved in case writing and case teaching since 1969, when he started to teach policy of enterprise and financial management at the Faculty of Economics and Business, the University of Maribor, Slovenia.

Professor Kralj has introduced these methods, especially the method of entrepreneurial creative cases based on real problems in real organizational environment [Kralj, 1999] to the students of College of Management. We have been using these methods for the subject "Fundamentals of Management« and »Fundamentals of Marketing". The creative and live case encourage the participants to conceive and create new ideas in a certain field.

THE LIVE CASE

The live case is about real problems in real organizational environment in real time. An example of the live case: A manager of a business organization in our region presents an actual problem to students.

The manager introduces the problem they face in their enterprise to the students: they are rearranging the interior in one of their supermarkets. He explains the present situation (the present interior arrangement, the arrangement of aisles, etc.). Till the next meeting the student is obliged to study the case by himself, to look at the place and to prepare possible solutions, to suggest a decision and to make conclusions.

The teamwork starts with the instructions of the professor and his assistant as follows:

1. to introduce the best arrangement of articles in the supermarket,
2. to prepare a technical drawing (draft),

3. to conceive project marketing implementation (the cost calculation, the arrangement of selling items, the arrangement of aisles).

In the next step, the group of students (app. 34 of them) is divided into five teams of 6 to 7 students. After 20-minute brainstorming the problem (according to the creative method), the students prepare a plan to arrange space in the market. They present their ideas to the manager, who has introduced this problem to them.

Many of their ideas were accepted, which is not surprising as they are regular customers in that supermarket. And finally, when the needs of customers are met, it is very likely for a shop to carry on their business successfully.

THE CREATIVE CASE: ESTABLISHING A NEW ENTERPRISE

Students are asked to develop the design of a product that could exist in real life, to provide for the technical and commercial documentation necessary for production and marketing, and to make calculations for an appropriate business plan. In the end they present their work to other students.

The phases of the creative case are:

1. representing and explaining the actual case;
2. organizing the group of students into teams (5-7 students);
3. brainstorming (approximately 20 minutes);
4. assigning functions to each of the student in the same team (manager, reporter and note-taker);
5. accepting decisions (the professor or the assistant helps them to reach the right decision);
6. preparing the report on transparencies;
7. preparing the report on the work each of the team have done and briefing the others about the results of the creative case ;
8. challenging the other team (the challenger asks questions to the reporting team);
9. discussing, reasoning, instructor's stimulating, giving counter arguments, finding out new problems and solutions to these problems;
10. conclusion followed by applauding the successful performance, expressing the group's enthusiasm to invest in the "business".

THE CREATIVE CASE BASED ON THE PROTOTYPE OF A PRODUCT

The students' task is widened to the design and creation of a physical model of a product (a prototype). The actual performing was carried out as follows:

Students were divided into teams of 5 or 6 members. Each team had a limited quantity of plasticine available. Till this year toy bricks had been used for the same purpose, but plasticine was found more suitable material because it can be easily shaped and thus offers a better way of expressing.

The first step was to design a product, which could survive on the market. The students started to knead plasticine with enthusiasm of a child but soon they started talking about a potential product. It was very interesting to look at them arguing which idea was better. When they reached the agreement whose product should be produced, they started to create it, and prototypes arouse. After finishing their physical model they had to provide a technical drawing.

The second step was to do the feasibility study for the product. They chose its name, they decided the material for the product and estimated the costs of production. After that they set the price of the product.

Completing the previous task they were to "establish" an enterprise, which could produce and sell the product. Students chose the name for the enterprise, the address, the nominal capital and the number of employees. The elaboration was in the form of a business plan or a design of the basic enterprise policy, i.e., concept, vision, missions, objectives, goals, strategy and structure. Beside the costs of production, the overhead expenses, and marketing were considered. The teams chose the target customers and designed the marketing strategy. They prepared a marketing plan and produced a flier to promote the product.

In continuation they worked out the balance sheet for a normal business year. So they anticipated the selling quantity according to the size of the potential market. They assessed the revenue, so that they multiplied the estimated selling quantity by the estimated selling price. They also included the anticipated expenses for the material, labour costs, rents for the premises, marketing costs, etc.. After that, they were able to anticipate the rate of return.

Finally the students prepared the report, and the student appointed to report presented their project in front of the whole group. The aim of this step was to get some feedback from "the market".

Some of these imaginary enterprises and products were:

- BREEZE, dryer.
- BEND, steering wheel.
- GOOD LOOK, hair brush.
- MOBI DRIVING-ME-CRAZY, audio mobile phone.
- FURBO, Millenium Bug 2000 FX - automatic hoover.
- JUPITER, massage chair.
- JUMBUS, walkie-talkie nipple .
- CRYSTAL, special fruit bowl.
- GIGI LINER, boat.
- TRENDY, advertising souvenir.
- WHITENESS, boom sleigh.
- SHINE, wrist watch and cosmetics – three in one.
- POSEIDON, bath avant-garde (with sauna, massage, shower, Jacuzzi).
- WHIRL, cleaning appliance.

The students involved in this project were first year students who had a limited knowledge of economics, accounting and marketing. Nevertheless their products were well, even admirably conceived. The results varied from one team to another. Some of them found out that the projected price of their product was too low to cover all the operating costs of operating. They were forced to raise the price but at the same time they realized that their product could not be competitive on the market. The idea that appeared to be attractive did not prove profitable in the end; some of the products did not prove to have considerable sales potential.

By using the creative case method of teaching, we encourage creativity, innovation, analytic approach to problems, discussion and argumentation. The classical method encourages competitiveness (in search for the right decision), while this method stimulates also creativity and innovation.

Another important aspect of this approach is students' motivation to achieve proficiency when the students discover their lack of knowledge in a particular subject.

CONCLUSION

The creative case, when carefully prepared and guided, encourages students' creativity in search for the most suitable solutions. At first it arouses students' attention, followed by curiosity, and competing among teams in the search for new ideas. They also become aware of the importance of argumentation and counter argumentation when they try to convince the whole group that their ideas are sensible.

The student is an active participant in the learning process; therefore he is never bored. The students come to classes in large numbers (90 - 100% attendance), but not because it is obligatory but because they are eager to come, to take an active part in this process and to try their ideas, which they implement through game, but will be used later in real business life."

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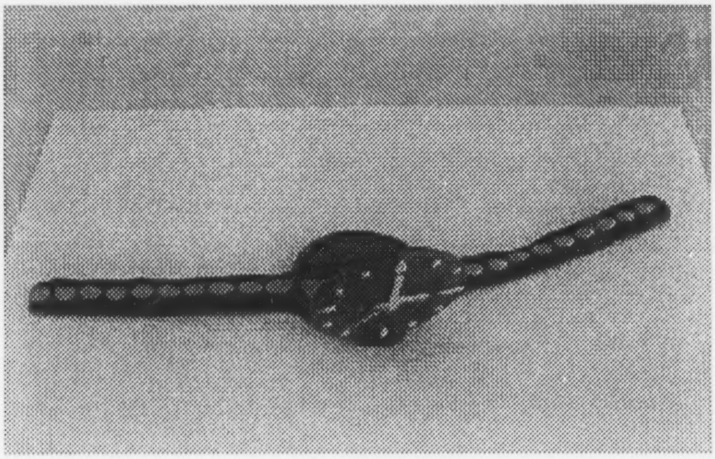
APPENDIX
STUDENTS' REPORT ON A CREATIVE CASE

The title of the case:



GROUP E - Team 2
Matja□ MASLO (manager)
Aleksander MAGLICA (note-taker)
Lea ŠIRCELJ (reporter)
Katja FEDRIGO
Helena MUHA
Jana BRO□I□

ENTREPRENEURIAL CREATIVE CASE
CREATION OF A NEW PRODUCT AND MARKETING IT

SIJAJ d.o.o.

Pristaniška 555
KOPER, SLOVENIA

SIJAJ d.o.o.

Our enterprise has been operating for seven years now. We are located in Koper, Pristaniška 555, Slovenia. We produce various kinds of cosmetics. The enterprise is managed by professional staff.

Mission: To provide our customers with the cosmetics that will make them SMART AND ATTRACTIVE AT ANY TIME.

Vision: To develop capacities of production and enter foreign markets, and to become a market leader in this field.

Further: to offer new products every year.

A WRIST WATCH WITH COSMETICS AND A MIRROR

This is a wrist watch, 5.5 cm in diameter. The face and hands o the watch are outside on the top cover, which can be opened There is a small mirror inside and on the bottom you can fin cosmetic powder, eyeshadow and a small brush enclosed. Yo can choose the cosmetic contents in accordance with you fancy. You can also replace a watch bend, which comes i different printed patterns of various materials.

The target customers are girls and ladies above fifteen.
The product is an innovation on the market.

WORKERS AND EMPLOYEES NEEDED:

- 2 precision mechanics,
- 2 chemical engineers,
- 7 workers in production,
- 1 manager,
- 1 accountant,
- 1 advertising agent,
- 1 char woman.

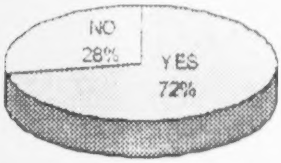
CALCULATION OF COSTS: (in Slovenia Tolars – SIT)

▪ costs of production material	5.430.000,00 SIT
▪ costs of electricity	180.000,00 SIT
▪ telephone expenses	140.000,00 SIT
▪ heating costs	200.000,00 SIT
▪ municipial taxes, water, and other costs	90.000,00 SIT
▪ depreciation	2.930.000,00 SIT
▪ operating costs	18.960.000,00 SIT
▪ logistic expenses	50.000,00 SIT
TOTAL COSTS:	**25.000.000,00 SIT**

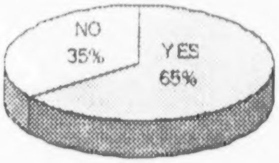
MARKET RESEARCH:
In February 2000 we took an opinion poll. We interviewed some potential customers i. e. women (100) from 15 to 60 years. Women, aged 30, were most interested in the product.

RESULTS OF THE POLL:

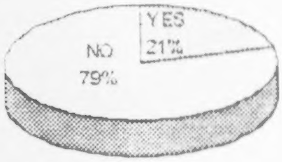
- Do you use cosmetics?



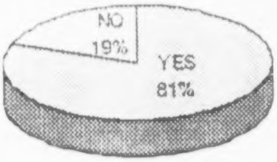
- Do you need a lot of space for cosmetics in your bag?



- Do you think you could manage without watch ?



- Do you think a watch is a fashion able accessory ?



- What do you think about the idea to have a watch and cosmetics in one piece?
  - interesting
  - useless
  - good idea
  - bad idea
  - crazy

BEST COPY AVAILABLE

Expected quantity of sale:

3200 pieces per year (price of a product = 15.000 tolars per piece)

INCOME STATEMENT:

	in Slovenian Tolar	
15.000,00 SIT x 3200 =	48.000.000	income
	- 25.000.000	Business expenses
	23.000.000	**Earnings**
	- 5.000.000	(Reserves)
	- 1.250.000	(Market Research)
	- 3.000.000	(Investment)
	- 4.000.000	(Innovations)
	9.750.000	**PROFIT**
	- 2.437.500	(Taxes 25%)
	7.312.500	**NET PROFIT**

We think that the idea is resonable and we would be ready to invest.

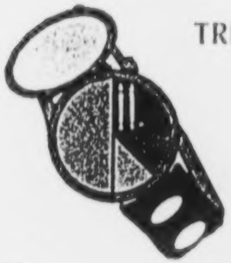
S I J A J

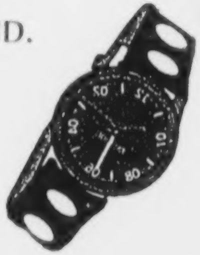
FASION 6556G

REVOLUTIONARY WEARING WRIST-WATCH.

THE WATCH FOR THE 21ST CENTURY.

THE LATEST FASHION TREND.

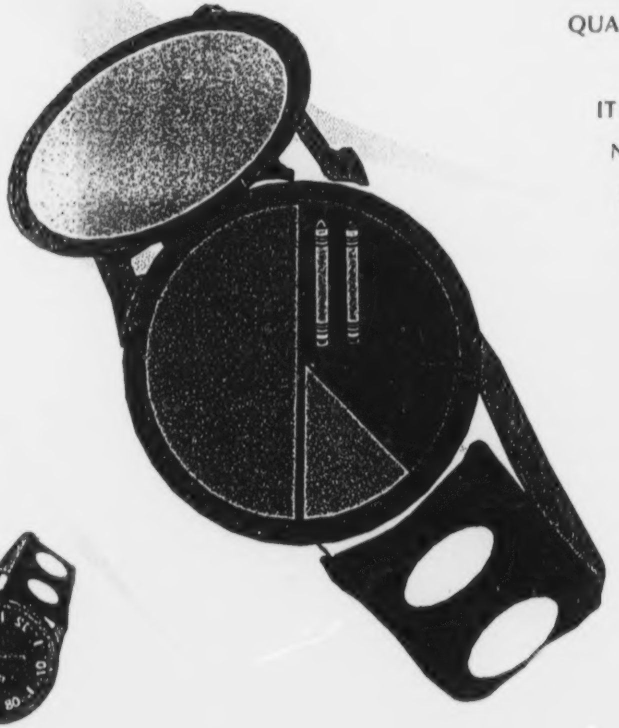




THREE IN ONE !

THE WATCH IS DISTINGUISHED FOR ITS QUALITY AND ACCURACY.

IT CONTAINS THE NEWEST COSMETICS BY MAX FACTOR.
VITAMIN E IN UV. FILTER IS INCLUDED; NO SPECIAL FRAGRANCE.
PERFECT COLOR AND SHINE

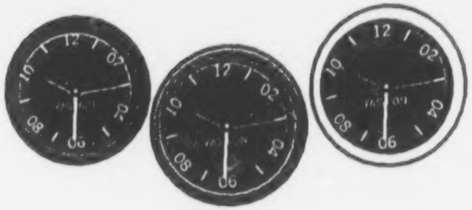


PROPERTIES:

New woman watch FASHION 6556 G with quartz and face, mirror, lipstick, eye shadow and make-up.

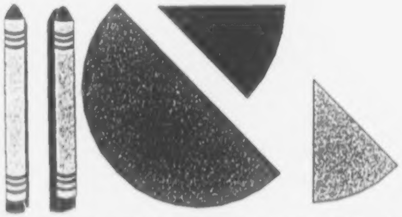
Casing from carbon fibre used in Formule No.1 and avionautics.

ACCESORIES:



You may choose any colour and grafic design you desire.

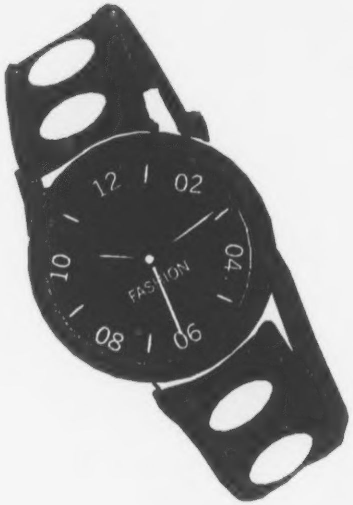
Fashion 6556G you can refill or replace the cosmetics whenever you want.



SIJAJ

SIJAJ d.o.o.
Pristaniška Street 555
6000 KOPER

SIJAJ
FASHION 6556G



THE MOST ACCURATE AND BEAUTIFUL NEW WATCH FASHION 6556G

ACCOUNTABILITY CASES: LOOKING DEEPER INTO TESTING FOR TEACHERS

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University of Houston
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Abstract

The move to teacher accountability through paper-and-pencil testing is increasing throughout the United States. This shift may have ramifications that may not have been examined critically--among those are increasing the likelihood that many minority teachers may be denied certification (thus increasing the teacher shortage in areas that can least afford it), allowing unqualified teachers to go into classrooms while denying skilled ones, having colleges of education closed, changing the professor/student relationship, and so forth. This paper examines several cases of pre-service teachers and a college of education affected by total test reliance.

INTRODUCTION

It was a heartbreak for us! The list of those who had once again failed our state teacher certification test was received and there, yet again, was LuŒ's name. We had watched this teacher-to-be begin her teacher education professional development classes and continued to note her successful work with children in our field-based program. She is older and extremely intelligent but, understandably, a slow reader--a fact that she considers her downfall in this 4-hour long test that totally consists of reading scenarios with many long multiple choice answers. She had come to America at the age of "6. Her spoken English is certainly accented and, now and again to be truthful, contains a few mistakes. These mistakes are the typical Chinese/Vietnamese ESL (English as a Second Language) difficulties of dropping articles along with some plural problems at times. In many states, native English speakers suffer from regional mistakes that are as notable as her speech. Lu, having been employed as an instructional aide for many years in a multicultural school district with over ",500 Asian children, had worked with a number of ESL children. Who better to understand how it feels to be attempting to learn another language? In a district with so many Asian children, many of whom are recent Vietnamese and Chinese/Vietnamese emigrants, the vast majority of ESL teachers are Spanish speakers rather than Asian. In addition, she is now teaching in her district that started the year with 58 substitute teachers in classrooms that could not be filled with a certified teacher. She was already certainly a talented instructional aide, as recognized by her school district by giving her a scholarship to return to the university for a teaching degree--with time off to attend classes! Now, if she does not pass the state test, she will, we suspect, go back to being a lower-paid, lower-status instructional aide--that is, of course, if her pride can tolerate it. We suspect that she will take her degree somewhere else.

It was a heartbreak for us! I could not believe that she passed, yet there was the score! Kelly had come to our attention from another professor in one site of our field-based program. This professor had met with the elementary coordinator, noting that Kellyss problems were NOT academic but were really cognitive and social in nature. Kelly could not think through a lesson plan! Further, she was not wanted in two Professional Development Site (PDS) schools because of strange social behaviors. Big problems!!!

In conferencing with her and her instructor, we attempted to "talk her out" of teaching in a number of different ways, but she was determined--and an otherwise "A" student. It was a difficult decision, for at times in our program a very few pre-service teachers can embark on a rough start as their training goes from a more relaxed college setting to an apprentice setting, where expectations are for a 4 "/" full-time day situation in a professional setting. We also know that personality differences can occur between pre-service teachers and their instructor or cooperating teachers. When a teacher candidate does not automatically make the switch from student to professional or personality difficulties occur, we normally work with that teacher candidate in repeating the professional development sequence and/or changing PDS schools or even sites. This is what we arranged for Kelly. She repeated classes with another instructor in a new PDS site, repeating her "A" quality papers. We believed that all was progressing smoothly until a few clouds appeared on the horizon. When it came time for teachers in her PDS school to select a preservice teacher to work with for the remainder of the semester, once again, no one wanted Kelly. Immediately, she was moved to the program coordinator's PDS, where we could personally observe her. Things in the new PDS looked up. Her new teacher had good things to say, and we were beginning to relax and believe that she was one of those students who just needed more time--as a few really do. However, it came time to develop her required integrated unit and teach lessons from that unit. Her lesson plans begin to arrive and again, we saw that there was trouble ahead! After two semesters of instruction on planning, etc., she could still not think through a logical lesson plan. After numerous consultations over the plans to help her design a correct lesson, we set up an appointment to watch her teach this first lesson.

During the process, it was obvious that she could not do it. She taught without ever really seeing the children or anything that they were doing. Her group was a gifted, well-behaved classroom...and they "took her for a ride" in a number of different and well-documented areas. If this had been her first time, well, yes, she could have perhaps skimmed by with a very low observation score, but again, it was her second semester, after working with children for almost a year in public schools. The problem was, of course, she was again making A's in all her written course work. However, we are not in the business now, as a field-based teacher education program, of putting those in the classroom who cannot, in fact, teach--whether they have done well in their academics or not. At that point, we met, hoping again to counsel her out of teaching. Again, she would have none of it, stating her excellent academics and her economic state of being a single mother of three who was "too close" to receiving her certification. Because of her excellent academics, the counseling board decided to give her one last chance in student teaching. She was also given a letter to sign stating that if there were any further concerns during student teaching, she would agree to "go away quietly." Six weeks into student teaching, the problems came, and she did go away. However, that is not the end of the case story.

Our university gives reviews for our two required elementary state certification tests, and one Saturday, there she was! "What are you doing here?" we asked curiously. "I passed the Professional Development test and I'm studying for the Elementary Comprehensive," she answered with a "look" that said how much she thought of our advice and decisions, continuing with "I'm going into the emergency certification program"! With her strong academic record, she had no trouble passing the test. With the shortage of teachers in our state, she will be in a classroom within a few weeks, and our hearts ache for the little children that passing the state examinations will allow her to teach--or rather, in her case, supervise--for she really is unable to teach. But the state tests are her ticket!

The state of Texas has instituted several state tests required for certification at the end of the teacher education course work, as have other states throughout the United States. In Texas, teacher candidates must pass at least two of these tests. If teacher candidates are seeking elementary certification, they must pass an Elementary Professional Development ExCET (Examination for Certification of Educators in Texas) and an Elementary Comprehensive. There are other specialization tests for some candidates, such as ESL, Bilingual, and Early Childhood. If candidates are seeking Secondary Certification, they must take subject-area knowledge ExCETs in the area in which they will teach and a Secondary Professional Development ExCET. This, in and of itself, might be seen as a positive move towards increasing the professionalism of teaching. However, many case studies such as the ones described above have been collected to show that it does not necessarily work as envisioned. In addition, if a college of education in Texas does not have at least a 70% passing rate in each of the following groups their first year as test takers, then the college is reported as "accredited on review": (1) females, (2) males, (3) Whites, (4) African-Americans, (5) Hispanics, and (6)"others" (meaning Asians, Pacific Islanders, Native Americans, and so forth).

If the college is on review without raising their scores after the third year of testing, then it becomes non-accredited, effectively being put out of business. Perhaps a reader may be thinking that if a college of education cannot pass at least 70% of its students on this test, it should not be producing teachers. Let us examine the case of a college of education that probably will, due to this state ruling. Texas is a state that shares a 1,248 mile border with Mexico. Along that border are many towns where the population is 90% Hispanic or more. Due to economics, many Mexican citizens have moved to the United States and settled directly on the U.S. side of the border. Even there, the economics are not often booming for those families who come with little or no education--but are almost always much better than in Mexico. The language of many of these border towns and cities is very much Spanish or "Tex/Mex". Many inhabitants, especially if they are older, never learn English, and many, truly, do not have a need to do so. Stores are operated by bilingual or Spanish-only speakers, television stations are received in Spanish, and so forth. Therefore, many children grow up where they speak nothing but Spanish in the home.

In the particular area where our case college of education lies, the climate and locale is also a problem. The summers are unbelievably hot and dry and the land is almost desert-like in appearance--and distances to other larger cities are great. Here, a small university has instituted a college of education. Distances that teachers candidates must drive even to attend this university are also problematic, much less to drive to another city or town with a college of education or regional service center (where alternative certification is offered). Therefore, professors have several extension classrooms, where these teacher educators drive for up to 90 miles to bring teacher education classes to university teachers candidates along this border area. These pre-service teachers are mostly Hispanic and bilingual, and many are the first to graduate from college in their families. Teaching, through their families' eyes and through economic reality, is seen as a fantastic economic opportunity. The problem? This college of education will be shut down or dramatically reduced due to their test scores, and no entity will likely take its place for these students. The teacher shortage in these areas will dramatically increase, and many public school students will be without a certified teacher. This is a closed-loop area--many of those who grow up here as bilingual students, stay in closer-knit family contacts. Few teachers from other areas in Texas can be convinced to move there due to the climate and the isolation, even with increased economic incentives. There will also be few opportunities for continued education through higher degrees. When this college of education can no longer certify teachers for this area, who will be left to teach the children of this area?

Here, in one of the local schools we find Gloria, a middle-aged Hispanic teacher and a graduate of the case university above. When visiting her school, her colleagues and principal comment on her enthusiasm and abilities for teaching. However, she has yet to pass the ExCET test after several tries. She had returned to college part-time while continuing to work for many years in an effort to get her degree and enter the classroom as a teacher. Yet after all of her college work and her good evaluations by her principal, she feels frustrated that it has been wasted. She will be removed from her position soon, if she cannot pass. She serves in a much needed bilingual position that cannot easily be replaced. In structured and unstructured interviews pre-service teachers and principals told us that students were receiving a good education and a good teacher education from this border university/college of education. Student after student told us that there would be no education for them if this college of education went away. They are in a precarious position. The test is a high-stakes paper-and-pencil examination that usually takes about four hours and cost $72 for each attempt--the later being an economic hardship on many in this community. It consists entirely of scenarios in which teachers must make decisions.

One scenario may have a number of different types of questions that are related to the scenarios. Two or more answers can be eliminated easily, while two could be seen as correct. Yet one of these is slightly better than the other, or, as is more usually the case, better matched to a perspective from the competency that is being tested. This is can be truly problematic for the ESL pre-service teacher. Discerning the "best" answer (or matching an answer to particular competency) when both answers are very good involves detecting slight nuances that requires a level of concentration difficult for even those pre-service teachers who are native English speakers.

There is another aspect of this type of testing that critical theorists may want to examine. Results are published by the media, and most hit the newspapers as front page stories across Texas. When minority, ESL teacher candidates fail or when a college in a community of mostly minority candidates fails, the general uninformed public may tend to shrug their shoulders unsympathetically, further marginalizing these groups. Speaking to school reform and testing, Banks noted, "At best, the increased attention to testing will result in more reflective, innovative, and progressive approaches to evaluation. At worst, testing will be used to replicate the status quo and to divert attention and resources away from (those) who need them most" [1993, p.43].

Yolanda is another example who may become a reported statistic. She grew up in poverty, yet she has almost "made it". It has been difficult for her to get through the university. "My mom sold tacos and tamales on the street, and we only had a one bedroom apartment when I was growing up. We only spoke Spanish in my house and in my neighborhood," she notes. She continues to tell us about her first year at the university, beginning with, "I was so ashamed that I didn't know what to do. I was the elite at my high school, and I had a full scholarship. Yet I lost it because I couldn't keep up. It was awhile before I understood that my high school dumped-down for us. I worked so hard to try to keep up and get my scholarship back. But I made it! If I could just get though this ExCET--this is my fourth try. My school won't be able to keep me much longer though, if I don't pass." Yolanda is a capable teacher who will give back much to her barrio.

Sharday also grew up in an inner-city neighborhood in a different area of Texas--and also in poverty. She did not know it though. "Everybody in our neighborhood was poor - nobody knew any difference," she laughs. "I was a real latchkey kid. I don't really know my dad. He wasn't around at all, and my mom worked till about eleven or twelve at night." English is Sharday's native language, though she can switch quickly to entertain her classmates in a local neighborhood dialect. She wants to teach in her neighborhood, and she will be great! She will be wanted in ANY neighborhood for her creativity, enthusiasm, and knowledge.

During her semester in a PDS site, she came to tell us that she needed to start a job because she only had $30 to pay for the rest of the semester. We were able to get her a quick loan, yet she still has her student teaching sequence to finish--a four month venture. She recently called again to ask if we could extend her deadline to pay for the $72 test because her financial aide did not come until after the due date for the testing center. Of course, there is no extension by the center. In addition to having few funds to attempt the test, Sharday knows that she is already a failure at test taking. She has never done very well on standardized tests which could be accrued to her being an African-American in poverty, possibly having internalized the notion that she cannot do well on a standardize tests (that in the past, have often been successful for white, middle class students). There are a number of different cultural theories as to why she does not do well, but the fact is, that she does not. And her self-efficacy for this test is low--she also is afraid that she has spent all this effort, only to be lost to teaching over her test taking abilities.

Welch and Sheridan [1995] list over ten methods and their modifications for assessing students at risk, yet when we assess our college students who may be at risk, they are expected to pass a "one size-fits-all" examination only. Not only are the dynamics of our students changing, but professors are changing as well. Professors at our case university who were interviewed (structured and unstructured) were wary--their jobs are at stake, and they have worked hard to set up a system that provides for their closed-loop community near the border of Mexico.

At this university, some were saddened, as they saw that there was really no hope for their students and, thus, for their jobs in the long term. "How can we take all our students who began to speak English so late in life and get them through this confusing test?" they asked. Others were angry at the way the test had changed their relationship with students. This echoed the voices of professors in other colleges of education. "We used to be able to spend so much time helping our students really learn to teach - now we just work on getting them through that test," is a statement heard often. Pre-service teachers who are not seen as being able to pass the test (for whatever reason) are being viewed as liabilities to get rid of rather than students who could use help, even if they are talented teachers--remembering that a college of education can be listed as non-accredited if 70% of any group does not pass. A college may have 98% of one group pass (or all but one group), but can be virtually closed by 69% of another not passing. Most of these those who do not pass are falling into minorities populations and most of these are due to language difficulties and cultural differences. This will work to create, once again, a de facto segregation of these groups just when minority populations were gaining some strength in teaching.

Some universities have purchased practice examinations as great cost and use them as stop-gap measures. In other words, if students cannot pass the practice test, they cannot continue in their course work. This might seem like a probable solution, but the test is designed (and named) as an "exit ticket" following a course of study. Therefore, if given during or prior to all course work, it can only be seen as a test of reading comprehension and entering philosophies of teachers-to-be. The test itself has changed several times, both in length and content, yet only one original practice test has been offered by the state.

Finally, professors argue that their voices are not heard. "The state is willing to put persons into teaching positions with a degree and no experience, while not taking into consideration the work that our students do under our direct supervision in schools. It is comparable to a doctor who receives the right to practice medicine from passing a test--but without an internship," states one professor. "Who would know if that medical student could really put scientific knowledge to practical use but those professionals with whom he or she works in an internship?" Not only must teachers be knowledgeable, but they must be able to "reason soundly" [Shulman, 1992]. Training teachers to pass the test rather than training them to teach seems to be an exercise in futility for both the teacher candidate and their students-to-be.

There may be yet another hidden ramification--that agenda of promoting alternative certification. Many see second-career persons with degrees as capable of handling a teaching job as those with degrees or specializations in teaching. There are some who definitely are. However, the nature of teaching has changed as children in the United States have changed. Children are coming to schools from negative situations that existed only in small numbers in the past, plus we have a vast amount of knowledge about learning and students that did not exist before. Those who attend alternative certification programs often receive little training in areas needed to impact these children. While having a degree and/or working for some time in another position certainly brings knowledge and maturity to teaching, it is NOT teaching experience. By closing colleges of education, alternative certification centers will be increasingly responsible for providing teachers for many difficult classrooms and students. Most colleges of education provide for field experiences of many types, including a student teaching semester where teacher candidates are responsible for a classroom for a number of weeks while being supervised by a master teacher and a university supervisor. Some colleges of education provide early Professional Development Site (PDS) training in which students spend a year or more in schools. In contrast, those who are alternatively certified spend no supervised time in a classroom prior to their first teaching assignment. Alternative certification is an profitable way of bringing in talented individuals who are able to take a classroom, yet if all our teachers have no prior classroom experience prior to their first day on the job, what will our schools be like in the years to come?

A segue of this question is then, perhaps, "What does the score really mean?" Wiggins[1992], for example, argued for standards rather than standardization:

> "Here we see where American education has gone so wrong – we have uniformity in testing, but no exemplars; we have standardization of input--the items on the test--but not standards for judging the quality of all student output--performance on authentic tasks. We have cutoff scores, but no way of ensuring that scores correspond to qualitative distinctions in real-world performance-- authentic standards. The greatest harm of these proxy tests and standards is their reliance on secrecy. But if test validity depends upon secure tests with seemingly arbitrary standards, how will students and teachers improve their performance?" [p.473].

Examinations are prepared by companies who may or may not deal closely with terminology in the particular area where the test is given. At a recent state teacher educators' meeting, for example, not one of many had heard of a particular term used in the latest Professional Development ExCET. If teacher educators are not using comparable terminology to the test, teacher candidates taking a test are certainly not going to be familiar with that vocabulary and are going to be disadvantaged. A teacher candidate who takes a test a testing date with 150 questions presented is compared to a teacher candidate who takes a test on another date several months afterwards with 100 questions. There is considerable difference in reading time for the former for success. However, both must pass with a 70% score.

No one, of course, is allowed to review their test. Indeed, what does 70% mean versus 69% or even 60%? Is an arbitrary percentage number indicative real teaching success? Certainly, wily teacher candidates can study the competencies of the state and answer in the vein of the philosophies stated in those competencies without ever intending to be the kind of teacher Texas wants. Also, the test is used for any teacher candidate: those who are experienced teachers coming from other states, those who are in second career patterns, and those who are coming through college in a traditional way from high school. Should not experienced teachers be scored differently from those who have little classroom experience for validity? Again, what does the score really mean in terms of success?

The movement towards standards for teachers will not, and should not go away. However, standardization for teachers through this type of testing may need to be examined closely. Moss and Schultz continue, asking: "If it were widely known that nowhere in the routine assessment development process--including at the stage of standard setting--is anyone asked to examine the entire body of evidence from a candidate or that concrete cases of practice are not routinely available for review outside the small community of assessment developers, how many teachers would find that credible--except perhaps in the sense that, if the top measurement professionals in the country say it's credible, then it must be credible?" [p. 686].

Authentic assessment is called for by many in education as a methods of giving a whole picture of the individual in our schools. Should not our teachers have the same benefit? As an answer, after four years of paper-and-pencil testing, Texas is talking about an observation criteria for first year teachers. This could be a step forward as a part of a total picture, taking into consideration that first year teachers in many districts traditionally receive the worst assignments in a "pay your dues" mentality. Case study methodology will be an excellent way to discover what is really happening in these classrooms as the process develops--as it has to put faces to those that the written examine has touched. Teacher candidates will still need to pass the ExCET test, however...and Texas has plans to raise the passing score on this paper-and-pencil test even higher.

Again, colleges of education would be held accountable for first year teacher's observation scores in addition to its paper-and-pencil tests. The process is painful. Certainly, standards are needed, and colleges of education are interested in preparing the best students for teaching. No professor in education wishes to put any teacher into the classroom who cannot read English clearly and who is not prepared to answer the needs of each child in that classroom. However, as it stands, it is debatable as to whether or not this current test of accountability will work to the overall benefit of Texas and its children.

As accountability increasingly becomes a bandwagon issue in the United States and elsewhere, it would be prudent for teacher educators and the public to attach case study faces to the scores of teacher candidates to make sure that in the rush to get passing scores, we are not doing more harm than good to our future teachers and our educational systems.

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CHAPTER THREE

DO WEB-BASED PROJECTS IMPROVE STUDENT LEARNING?

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Abstract

This paper reports on experiences of upper level undergraduate students with the use of web-enhanced instruction (WEI) involving two different course design tools--WebCT and CourseInfo-- to respond to case project assignments. While arguments for increased use of WEI are compelling, the paper notes that nearly 80% of students surveyed agreed that "the team preferred a more traditional means of communicating". This suggests a breech between the opportunities of a $600 billion post-secondary education market and the threat posed by traditional student preferences. How to cross the chasm from early adopter market to majority market in a manner that enhances student learning is the challenge.

KEYWORDS: web-enhanced instruction, student learning, online case assignments

INTRODUCTION

Collegiality may be ingrained in college faculty hearts, but competition threatens their throats. For the nearly 3700 post-secondary institutions in the U.S., the competitive environment has increased markedly in turbulence.

While the $600 plus billion post-secondary education market (Economist, 1999) oozes opportunity, its attractiveness is more problematical. Participants now face:

- Rivalry of increasing intensity (from Knowledge Universe, backed by Sun, MicroSoft, Oracle, Apple, Sony, HarcourtGeneral, and the Washington Post; and from brand name universities such as MIT offering online courses [Syllabus, 1999]).
- Supply sources that are expanding (from, for example, the United Kingdom's Open University and its moving into partnerships with U.S. universities such as the California State University system).
- Substitutes that are expanding (examples include, the private for-profit Sylvan Learning Centers; New York University creating a for-profit subsidiary to develop and market online courses).
- New entrants vigorously pursuing marketshare (for example Jones International University, the first purely 'virtual' university to be granted accreditation, or National Technical University which brokers courses from over fifty universities).
- Customer buying power and needs that are changing (for example, the largest private university in the U.S., the University of Phoenix, focuses on meeting the needs of 'non-traditional' students --adults with families and full time jobs-- and under-served but profitable segment of the post-secondary terrain).

This abbreviated competitive analysis suggests that new forces are at work, new consumer needs are asking to be met and that taken together they are re-shaping the boundaries of the education industry. All this may change what traditional faculty do and how they do it.

The paper presents a qualitative study. It sets out instructor experience and student experience with two different course packages in two different courses involving about 80 students in twenty student teams in Fall 1997 and Fall 1999. It is an attempt to work through the 'distance education' hype into a better understanding of what's involved in using internet-based technology, how to use it to improve student learning, and how to do it with a reasonable expenditure of time.

Instruction has three main venues --physical (face-to-face), practical (on-the-job) and virtual (electronic). The focus here is on the virtual teaching/ learning environment, particularly, the use of web-enhanced instruction, and details experience with two popular commercially-available course design tools --WebCT and CourseInfo. It is meant to be a reflection on a new approach to teaching and is not an endorsement of particular 'tools'.

Since web-based courses come in several guises, some approximate distinctions may be in order. 'Web-enhanced' suggests a course in which the student is required to use the internet intermittently throughout the course. Web-supported denotes a course in which the student is required to spend at least one hour per week online, in lieu of a face-to-face session. A full web-based course requires students to do almost all their work on the internet. The instructor then has the option of gradually stepping into the online environment. Experiences reported here involve only the first step --web-enhanced-- online. Thus, the paper deals with a hybrid --inclass/ online-- experience and is a report 'from the trenches' on how some changes are actually occurring. It is not an exhaustive accounting of online activities. Yahoo searches turned up 276,795 hits on 'web-based instruction' and 42,286 hits on web-enhanced instruction.

The paper discusses: First, web-enhanced instruction (WEI), including a cursory look at three literatures as well as purported advantages and disadvantages; Second, WEI implementation steps; and finally, lessons learned by both students and faculty.

WEB-ENHANCED INSTRUCTION (WEI)

Web-based instruction uses the world wide web for the delivery of course content, communications with and among students, or the administration of tests and tutorials.

Brief Introduction to the Literatures: Education, Decision Sciences, Management

The use of the internet to deliver courses has interested many disciplines. Education, computer science, and discipline areas all interact. Windschitl [1998, p.28] notes that: "the vast majority of published work is description of technology implementation in classrooms". McIsaac and Gunawardena [1996] also claim that research on the educational use of the internet has been short of both analytical and qualitative studies. Research in the field of computer-mediated communication (CMC) has dealt primarily with conferencing systems [Gallupe and Cooper, 1995; Warkentin, Sayeed and Hightower, 1997] and groupware [Jain and Ross, 1998] to enhance the efficiency of teams.

Advantages

Frustrations abound in traditional classrooms [Gardiner, 1997; Handy, 1998] and solutions advocated include active learning, effective use of technology and collaborative learning [Bonk and Kim, 1998]. While hopes for technology are high, they do not necessarily translate into accomplishment. Still, a number of advantages have been advanced for WBI: first, the new tools provide new ways to accommodate various student's needs --different pace of study, links to source material, closer progress tracking as well as new ways for collaboration with newsgroups, bulletin boards and email. Second, instruction may be multi-dimensional and multi-referent --many sources kept current relatively easily. Third, students may access the course from 'off-campus' -- from home, work, anywhere an internet connection exists (geographical independence), using any type of computer (platform independence).

Disadvantages

The disadvantages, however, are equally real [Bromley and Apple, 1998]. The instructor's learning curve -- time spent 'upfront' in learning the tools and in re-thinking course material for new presentation formats-- requires increasing faculty development support. Technical restrictions may limit teaching methods. Further, technical support for both students and faculty may be as limited as it is critical. There are real risks to the classroom teacher: Even if only a course segment is run on the web, what happens when the technology crashes? Or, when, the segment of the package the instructor wishes to use still has some bugs in it? There are also risks to the student. Students need to be self-regulated and self-motivated [Abrahamson, 1998] otherwise frustrations with technology can be a barrier to the learner in an online environment.

STEPS IN IMPLEMENTING WEB-ENHANCED INSTRUCTION

The following steps are involved in creating an online project.

Planning To Learn: Subject/Instructor/Technology Interactions

This step is labeled subject/instructor/technology iterations and perhaps it should be embedded in other steps. It is worth noting, however, that something important occurs to the instructor's understanding of a subject as the instructor learns the way through the technology. Not only are new pedagogies involved but also new insights. Much of which is taken for granted in the delivery of a lecture needs to be re-worked for the electronic environment. It is this re-visioning that makes the process so interesting and, potentially, so time consuming.

In other words, it is a relatively straightforward proposition to estimate instructor time, if the only variable is 'technology'. Many course delivery software products are available. Marshall University [1999] has reviewed fourteen of these across technical dimensions of: developmental features, instructor tools, instructional features, student tools, technical support, administrator tools, administrative features, software costs, hardware costs. If the campus technical center has adopted a reasonable package and also actively supports it, then instructor time involved may include:

- Learning the package can vary from a few hours to intensive week-long workshops.
- Learning what the course delivery package requires. For example, do documents need to be in html? If so, then the instructor needs to learn another set tools that create html documents (Netscape Composer is common).
- Converting content material to electronic format and clarifying instructions.
- Providing links to subject sites.
- Designing interactive exercises for the electronic medium.
- Using, maintaining, responding to students on the site.

From the short list above, it becomes apparent that many skills are required beyond simply presenting material in conventional formats. It takes relatively little time to put a course onto a web site --using standard icons, selecting a few functions and assuming the syllabus is ready to be uploaded.

It is more problematical to estimate the other variables: How long does it take to re-think a course? To re-design student projects? To anticipate problems and develop solutions beforehand? To customize and update your site? Obviously no instructor attempting to innovate with course delivery should have to learn everything the hard way, although it may feel that way sometimes.

Creating Course Content

The instructor/ course designer creates course content using either html editors (or other techniques not requiring knowledge of html, but course content needs to be in html). Course packages typically involve at least three user types:

- administrator oversees course establishment and other factors such as technical requirements and is available for ongoing technical support.
- designer/ instructor manipulates the course features and content, creates student accounts and quizzes, checks student progress, defines student presentation groups.

- students access course through password and manipulate course content only as defined by the designer.

Both CourseInfo and WebCT begin at a single home page (the main page root) and feature various clickable icons. It is the entry point to course content elements, such as announcements, course information and documents, communications, and external web links. Content is usually created offline then uploaded to the course. Material it is then available on the Internet to registered students with passwords.

Establishing Communications: Instructor And Student, Student And Student

In web-based instruction, tools for communicating and interacting need to be designed and means developed to monitor whether the design is a success. Most packages have numerous tools [Marshall, 1999] almost a surfeit of choice for the beginner, including: bulletin boards, electronic mail, chat rooms, white-boarding, file transfer, student self-evaluation, student presentation areas, online quizzes, external references, automatic indexing and searching, page annotation, grading tools, as well as so-called designer tools which enable the instructor to do progress tracking, perform various student management functions and customize the course look and feel.

Measuring 'Results' And Developing Feedforward

Students participating in an international (US-Australia) collaborative project, Fall 1997, utilizing WebCT as web enhancements to their course were given user satisfaction surveys. Forty-two US students were asked to rate the effectiveness of the tools and their learning outcomes. In addition, they were asked which features they liked and disliked, what needed improvement, their self-assessed level of sophistication and whether their overall experience with WebCT was worth while. What is not shown is the amount of instructor time that went into this early experiment --designing and conducting a joint team project between students in two different countries-- about two hundred hours. Results are set out in Table 1.

TABLE 1
STUDENT EVALUATION OF WEBCOURSETOOLS (WEBCT)*

Scale: Low 1...5 high					
	1	2	3	4	5
Effectiveness of Tools					
• Conferencing	5	6	12	13	6
• Clarity of online directions	4	5	12	13	8
• Ease of use	1	3	8	13	15
• User expertise	1	8	16	11	6
Learning Outcomes using WebCT					
• Rank your learning outcome	1	2	9	19	11
• Improve under-standing of problem	1	3	16	16	6
• Improve quality of solution beyond individual	3	5	11	14	9
• Add insight beyond typical class project	2	3	8	20	9
• Achieve purpose	2	3	8	16	13
*Note: forty-two respondents					

The only problem with these raw results is that they are suspect (which is one reason we chose not to dress these data up in statistical clothes). Not that students intentionally mislead, rather they may make positive statements out of relief at ending the semester, concern for hurting instructors feelings or because the time of the frustration has passed. For example, 28 students claim high 'ease of use' which was simply not the case given the particularly high level of ongoing grousing and known technical glitches. Or, for example, 29 students claiming 'insights beyond the typical class project' or 30 students saying that 'learning outcomes were high', does not square with student course evaluations that were the lowest ever experienced by the instructors. Notes Unsworth [1997] "if failure isn't a possibility, neither is discovery".

DISCUSSION AND CONCLUSIONS

As a follow-up, a Spring 1998 survey of five instructors who had worked with early versions of WebCT was conducted. They were asked to give their impressions in terms of human, technical/facilities and educational factors. Table 2 summarizes their comments.

TABLE 2
FACULTY COMMENTS ON WEBCT

Human Factors	• Faculty Motivation: facilitate international communications relating to social, political and economic conditions and to life experiences. • Students: majority evidenced initial interest which then dropped off rapidly due to technology failures. • Comment: putting a course on the web meant really teaching two classes, or 'learning two disciplines', the subject and the technology.
Technical Factors	• Awkward screen layout, quirks in tools. • Unclearly documentation • Reliability and access to server questionable.

Educational Factors	• good source for collecting cross cultural information
	• easy to plug assignments into course
	• students learn what's actually going on in another country, particularly from sharing real experiences and from attempting to get information.
	• Instructor time and ease of use --
	  • much time spent putting up syllabus and much more time was needed to review and respond to assignments; difficult to respond in a timely manner to even a few students.
	  • In terms of managing discussions, students would not stay in their own discussion 'rooms' and as a consequence reading hundreds of messages became a chore, which students gradually stopped doing.
	  • much additional work required in organizing, managing and monitoring a class.

We think these comments represent the typical experience of 'early adopter' instructors.
In Fall 1999, the CourseInfo package was used and students were also given a user satisfaction survey. Table 3 sets out student responses to that survey.

TABLE 3
COURSE INFO EVALUATION*

Scale: 1...strongly disagree...strongly agree...5					
	1	2	3	4	5
Attitude Prior to Course					
• pleased at using new technology in class	1		8	14	15
• used similar technology before	22	7	5	2	2
• experienced with computers			1	10	27
Experience with CourseInfo during Semester					
• team made extensive use of group discussion board	9	9	8	9	3
• *team preferred using traditional means of communications*	1	6	1	12	18
• improved quality of solution	6	5	13	12	2
• information disseminated better vis a vis traditional course	1	3	8	18	8
• improved quality of class content		7	12	12	7
• improved quality of content delivery		6	10	13	9
• made class more interesting	2	3	5	13	15
• easy to understand and use	2	3	5	13	15
• effectiveness of CourseInfo			7	19	12
Note: 38 respondents					

Johnstone and Krauth [1996] maintain that student achievement and satisfaction does not differ significantly between a traditional class and a distance education course.

The results from our survey suggest otherwise. From the above Table 3, about 75% of the students were "excited by the prospect of experiencing new technology," and thought that it "made class more interesting"; but, after all was said and done nearly 80% "preferred using traditional means of communications". How should a university respond? Where does its responsibility lie?

The traditional university --a 'professional bureaucracy' [Mintzberg, 1983]-- is in a double bind. Both top administrators and entrepreneurial faculty salivate at the opportunities presented by an education market of an estimated $600 plus billion. Both see the threats --private for-profit colleges, privatized for-profit spin-offs from state research universities, course 'branding' by big name universities, federal financial aid to distance learners, but remain stuck in their bureaucratic and professional environments.

The professional faculty, of course, engage in what they are trained to do -- raise questions about standards and quality and learning outcomes. Many ongoing issues need to be explored: Which types of course have the best fit with course delivery software? What kind of cost/ benefit and value-added analysis should be done? How best to handle differing technical skills or access of students? How to deal with students whose interest drops off during the semester? How to support faculty? How to humanize the technological environment. How not to lose sight of the goal --student learning? How to embody 'hi-touch' active learning with 'hi-tech' delivery to improve overall learning? Do students learn more/better? How big is the trade-off between faculty learning/course designing time with enhanced student learning? Satisfaction surveys really do not answer these questions. Much discussion of distance learning and electronic classrooms has been led by those with technical expertise.

Both content-oriented faculty and many students, however, remain frustrated with the process [Hara and Kling, 1999]. It may be a real world experience, but students do not have to like it. Some students (independent, motivated, and geographically isolated) may enjoy improved access; but Internet technology may be a negligible enhancement to the learning of many types of students. This, of course, is a critical variable.

Another aspect of the bind is that concomitant with faculty retirements, many universities are experiencing an echo-boom in student enrollments. With faculty hiring held to a minimum, either class size increases, or students go online. This sets the stage for the entry of new competitors, which, in turn, creates pressure for traditional faculty to creatively adapt courses to electronic delivery. Thus, attempts are being made to design web courses using active learning techniques [Campbell, 1999]. Given improving technologies, accessibility issues and the glitter of technology-based jobs, it is likely that WEI will become a primary delivery channel for some courses and increasingly used as a secondary channel in many courses.

Technology is now a main driver in the education industry. This raises the risk to institutions of only limited involvement in new learning technology because students have a new range of choices. At this time, most students may prefer 'traditional means of communicating"; indeed, the main hurdles to adoption are human and administrative rather than merely technical. While electronic delivery of course material may be an increasingly cost-effective option, its learning value-added will likely vary course by course.

Strategic management faculty may also be inclined to raise another question --Will online learning be able to cross the chasm (Moore, 1999) from the innovator/ early adopter market into the majority market? Perhaps, answers to the strategic question lie in considered responses to the professionals' questions.

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INCREASING STUDENTS' PARTICIPATION IN RESPONDING TO CASES THROUGH THE USE OF A LISTSERV AS AN INSTRUCTIONAL TOOL

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Abstract

In this qualitative research, we explore the use of listserves as instructional instruments at the graduate level, in a school leadership program, at a midwestern university. An open-ended 5-items questionnaire containing statements that elicited written answers was constructed, face and content validated. Twenty-five graduate students, including some who had never used a computer-based technology program before were administered the questionnaire. In their responses, subjects expressed their ideas, feelings, opinions, and suggestions about the use of the listserv. The researchers used the information collected to obtain new insights and determine the usefulness of such a tool in higher education classrooms. Respondents input, as well as the available journalistic literature in the field, agree that listserves are viable classroom instructional tools that, if used properly, can expand the learning experiences and broaden the attitudes of all users. This study presents the pros and cons of the listserv use, as well as anecdotal experiences of students who used this educational tool for the first time.

The study concludes that listserves, not only provide mainstream American students' exposure to diverse ways and forms of written expression, but also help them become aware of new ways of thinking and processing of ideas from minority cultural and language groups. Among those are customs, idiomatic expressions, cultures, psyches, and idiosyncrasies of other students, who may be taking similar classes simultaneously. Students who use listserves can get in touch and exchange ideas with others in their own or other educational institutions across their own cities, states or across world countries. Students can learn to share ideas about specific topics or areas of study provided by teachers, that may help them become more tolerant of opposing points of view. Listserves provide alternatives to higher education classroom instruction and can prepare students in more demanding and complex remote computerized learning experiences, i.e. web courses, in the future.

INTRODUCTION

Few would disagree that current technology has a profound effect in the academic arena. Similar to the industrial revolution, the technical revolution has brought a dramatic shift in the way we live, perceive the world around us, and perhaps even in the way we think. We are all aware that technological advances that include, but are not limited to instructional services, audiovisual aids, internet applications, freenets, multiple softwares, diverse hardware, and others have drastically changed our ways of teaching. The impact of technology in higher education classrooms has been at the top of the academic discourse for a long time. Technological literacy, for instance, is of vital importance to students, affecting how they learn, how they may conduct their future lives, and what type of employment opportunities they may have. The academic profession is now being challenged by the latest technology advances forcing curriculum changes and enhancement. University professors are increasingly integrating technology into their teaching to actively involve students, help them view knowledge in interrelational ways, guide them into the development of higher-level thinking skills, inspire them to carry out in-depth research, and enhance their inter-personal and social skills.

TECHNOLOGY IN THE CLASSROOM

The power of the use of modern technology to transform education has been recognized by educators, school administrators, legislators, and the general public. The use of technology in our classrooms has been identified as one of the most powerful agent of change in curriculum development and in the role teacher plays today.

The existing and emerging technologies, the Internet connections in particular, as well as the use of the World Wide Web, CD roms, videodisc technology, multimedia, computer networks, and satellite technology demand the human willingness to provide the proper support system. In academic environments, the teachers are the human components of the nomothetic-ideographic equation. They are the primary backbone supporting the technological conditions and development of any social open system.

Donna Harrington-Luecker (1997) listed five suggestions for technology planning in elementary and high school settings: (1) don't expect change overnight; (2) start small; (3) pay attention to equity; (4) invest in the early grades; and (5) make teachers' needs a top priority. These suggestions can also be transferred into higher education classrooms. Technology takes time to digest and it must be taken as part of the classroom in order to gradually transform instruction. When faculty experiment with technological artifacts, for instance, the presence of the tool, i.e., a computer, many times intimidates and creates an immediate resistance. In fact, this resistance seem to be related to the lack of environmental dominion, feeling of disempowerment, and immediate frustrations which oblige them to stay away from what they perceive as uncontrollable forces. At the beginning of any technological enterprise, small organized steps would work more effectively in the classroom, than suddenly imposing a frightening complex instructional technological plan on everyone. Rogers's (1983) general theory of diffusion of innovations and Markus's (1987) critical mass theory of media adoption, have influenced research on the adoption and use of different forms of communication. The diffusion of innovations theory states that when adopting an innovative approach, early users see the benefit of using it (in our case, the listserv), and others follow suit to stay competitive or are persuaded to adopt the innovation by peer pressure. Critical mass theory mentions that utilizing an interactive medium "is beneficial only given a sufficient number of innovators and assurance of universal access to interactive media" (Thomas, Clift, & Sugimoto, 1996, p. 166). It seems that innovative users can develop a more efficient connection and familiarity with the innovation, as well as being able to develop an interdependence among them, over time.

Short, Williams, and Christie (1976) as well as Fulk, Steinfield, Schmitz, and Power (1987) suggested that individuals select the type of communication to be used in particular situations based on such aspects as social presence, which refers to the extent to which the medium allows the user to feel a degree of personalization, sociability, warmth, and sensitivity from the partner(s) in communication. Other researchers have included the richness of the medium, seeing it as the extent to which media are able to bridge different frames of reference, make issues less ambiguous, or provide opportunities for learning in a given time interval, based on the medium's capacity for immediate feedback, the number of cues and senses involved, personalization, and language variety (Treviño, Lengel, & Daft, 1987; Daft & Lengel, 1986; Rice, 1993). Both definitions, social presence and richness of the medium, establish that individuals perceive, feel, and process experiences with the medium in distinct ways. If the individual who is interacting with the medium makes sense of his experience, then his response to the situation is understood as significant.

Also, this interaction would be more valuable and personally rewarding and consequently, the learning process becomes more powerful.

University faculty who use instructional technology often, find that traditional university work is valued more highly than technology-based projects. Research studies have shown that college faculty believe they are unprepared to use instructional technology in their course instruction (Brooks &Kopp, 1989; Roblyer & Barron, 1993). Also, faculty in general have not yet adopted the systematic use of technology for the delivery of instruction because many are ill prepared and are not consistently using technology in their coursework (Taylor, 1994).

In 1994, Seminoff and Wepner cited three barriers affecting college professors participation in technology-based work. They reported that 80% had limited knowledge about how to present technology-based material in a scholarly manner, 49% lacked reassigned time from teaching responsibilities to develop technology-based work, and 45% lacked expertise in using technology. Due to research findings such as the ones mentioned, there have been serious attempts to create national and state guidelines to provide directions to colleges of education, with the purpose of including technology provisions that may impact university faculty personnel policies regarding the development and use of technology and information systems. With new expectations for technology proficiency, university faculty may increasingly require updated training, more sophisticated personal computers, hardware, software, connectivity, and state-of-the-art instructional laboratories.

Pamela Taylor and Wesley Little (1996) designed a benchmark list to assist faculty knowledge, skill, and ability to integrate technology in their daily work. Some of the aspects they considered were: "(1) the requirement that students work collaboratively to make group presentations using technology, (2) the requirement that students word process all final coursework, (3) the ability to use computer-assisted instruction as an alternative medium to deliver instruction, (4) ability to use teacher utility tools for grading record keeping, and test generation, as well as the ability to master basic instructional technology skills in the area of productivity, multimedia, telecommunications, and classroom integration (p.220)".

CONTEXT OF STUDY

Nineteen students participated in this semester long project. All students understood that their coursework would require them to be subscribed to and use a listserv regularly. They had no prior training in e-mail or listserv interaction. The courses of LEAD 429 (Research in Educational Leadership) and LEAD 421 (Foundations of Educational Leadership) are the units of analysis in this study. In this qualitative study, we examined the potential of combining teaching cases (instructional technique) with telecommunications technology (listserv), to stimulate learning communities comprised of experienced teachers. During the Spring semester of 1999, both courses met intensively for approximately 14 weeks, after which students were assigned case studies to be responded in the EDFN429-L and EDFN421-L listserves.

Graduate students represented in the School Leadership program include teachers from public and parochial schools. Many of these graduate students lacked basic knowledge in instructional technology and basic information on e-mail interaction, to fully benefit from advanced technological curriculum infusions. In the recent past, the instructor has attempted to introduce the students to the simple use of e-mail. Training was provided and the access to open an e-mail account was facilitated. All students had free electronic mail accounts and were linked to the Internet through the university mainframe computers. They received the e-mail addresses of the other participants and could simultaneously send e-mail to all of them. The instructor taught students how to use the e-mail system and encouraged them to communicate with peers, professors, or anyone else, by electronic mail. It is fair to say that the students did not feel the same enthusiasm for the potential use in the class as the instructor did. She insisted in using the electronic mail for basic communication of diverse educational issues and or course directions. In order to encourage the use of the e-mail system, the instructor developed the syllabus and included a statement which said: *The E-mail, or electronic mail is fundamentally the same as paper-based communication, but due to the turnaround time, E-mail is more "conversational" than paper communications. If you do not have an E-mail account, you will need to get one. If you do not know how to use E-mail, this course requires to attend one of the E-mail workshops scheduled by the Academic Computing Services during this term. It is expected* *that you make your own arrangements to learn to use the e-mail system, our listserv, and/or distribution lists.* Like other instructional technique, the e-mail became an instructional tool and an assessment piece of the course.

In trying to convert the classes into learning units, the instructor planned and organized a more aggressive plan for computer recruiting users. It consisted of incorporating in both syllabi assessment plans the use of the listserves as instructional tools for all graduate students. In them they were encouraged to communicate about specific case studies and educational situations, as well as other topics of common interest. An example of the statement embodied in the syllabi of LEAD 429 and LEAD 421 *stated: The student is responsible for subscribing and participating on the listserv EDFN429-L. The discussion on the listserv will be based on articles selected by the instructor. The instructor will initiate the discussion and keep track of the number of times you have participated and interacted using the listserv. There must be a minimum of 5 interactions during the semester. Please make sure that you discuss only the research article suggested. Any discussion outside the topic will not count towards your grade.* It was expected that Interacting in the listserv would hold students responsible and accountable for accessing class assignments on-time and on-line.

The students were given two weeks to obtain their e-mail accounts and to subscribe to the listserves in their respective courses. To avoid the socioemotional character of student-teacher messages found in earlier research, the instructor overstructured the listserv interactive environment. Students's messages were heavily assignment oriented. They were required to send a response to the case posted and at least two reactive interactions with other participating classmates. The listserv assignment had specific deadlines to which the subjects had to pay attention in order to receive the grade given for having participating in the listserves.

An assessment instrument was designed to control, record, and supervise the students 's responses and interactions. Each case or situation selected for discussion was related to the content to be taught in the regular face-to-face class meetings. As expected, the interaction helped expand the discussions on topics such as such as school administration, conflict resolution, decision making, organizational culture and climate, leadership issues, legal aspects of school life, etc.

DATA COLLECTION

The instrument "Listserv: A tool for Instruction" used for the purpose of data collection was designed by the researchers. It was face validated and corrections were made before administering it. The five-item structured questionnaire asked the following questions: (1) Describe your feelings about the use of the listserv in the classroom prior to starting participating in it; (2) What do you think about the usefulness of the listserv as an instructional tool?; (3) List three most important advantages and three disadvantages regarding the use the listserv has in the classroom, (4) The listserv provides an electronic workspace for collaborative work and the sharing of ideas. Do you agree or disagree with this statement? Explain., and (5) How ready do you think you are to register and attend an online interactive course (web-based or web-enhanced)? Explain. The instrument was given at the end of the semester. It was sent electronically to both listserves. The students had the option of either answering it individually and sending it only to the professor or placing their responses on the listserv to be read by other subscribers. Most students (65%) e-mailed their responses to all listserv participants. Another group (35%) preferred to answer a paper copy to maintain its confidentiality and their anonymity.

ANALYSIS OF OPINIONS

The formation of five categories resulted from the analysis of the students' opinions. Each instrument analyzed, regardless of length or content, represents a unit of analysis. The categories are:

- Course Related
- Personal
- Instructional
- Innovative
- Technological Readiness

Table 1 follows in which the categories and descriptions are reported.

TABLE 1
CATEGORIES OF STUDENTS' OPINIONS

Category	Description
Course Related	Responding research and leadership cases allowed the expansion of knowledge on the subjects discussed
Personal	Reacting to cultural differences, controversial issues, wishing good day to all subscribers
Instructional	Connecting information to course content and other methodological applications occurring in the classroom
Innovative	Reaffirming the satisfaction level of using this type of communication and the collaborative work created
Technological Readiness	Feeling ready to register and attend future courses offered in the web or using any other technological tool

MEETING TASK DEMANDS

In many ways, the context in which learning occurs is crucial to motivate the learner. People learn more effectively when they are learning about something that they are interested in, that they already know about, and that affords them the opportunity to use what they already know to figure out new knowledge introduced. Our findings are gathered in Table 2.

TABLE 2
SUMMARY OF LISTSERV: TOOL FOR INSTRUCTION SURVEY FINDINGS

Item Description	General Opinion
Describe your feelings about the use of the listserv in the classroom prior to starting participating in it.	I was very interested in the prospect of doing part of the course online because I am interested in online learning
What do you think about the usefulness of the listserv as an instructional tool?	I found the listserv to be an excellent learning tool
List three important advantages and three disadvantages that in your opinion, regarding the use of the listserv has in the classroom	Advantages: • To think about questions at my leisure and respond accordingly • To ascertain the thoughts and positions of my classmates • Stimulated out of class discussions between myself and classmates • To provide a means to communicate with many people at one time • To incorporate technology into the course Disadvantages: • Classmates were repetitious and numerous • Too many people to respond (it was overwhelming) • Not integrated 100% into all classroom activities As long as the system is available, it has more advantages than disadvantages

The listserv provides an electronic workspace for collaborative work and the sharing of ideas. Do you agree or disagree with this statement?	Yes, I agree that • It does provide an electronic work for collaborative work • It is a tool on the information highway that opens the exchange of ideas
How ready do you think you are to register and attend an online interactive course (web-based or web-enhanced)?	• Although I think I would prefer the regular teaching format, I would be ready to try an online course • I am ready. I love being on-line and using e-mail • I am very ready to sign up for any web-based course that is being offered

Electronic communication can provide a communication bridge that increases the frequency of interactions among students. Individuals vary, therefore, positive and negative responses can be found, according to the degree of satisfaction and technological aptitudes present in some individuals. Table 3 shows the percentages of positive and negative responses given by the subjects to each item in the questionnaire.

TABLE 3
SUMMARY OF RESPONSES

Item	Positive	Negative
Feelings about the listserv	58%	34%
Usefulness of the listserv	79%	21%
Advantages & Disadvantages	76%	24%
Electronic workspace	84%	16%
Ready to take web-courses	47%	53%

The table shows evidence of the positive and negative aspects of the listserv as an instructional tool in the higher education classroom where it was implemented. There were surprises in the reactions of the students regarding their feelings, prior to being exposed to this technology. Most of them were willing to take risks and did not report reluctance connected to the newness of the tool and their inexperience with telecommunications. Even more important findings surfaced in relation to the listserv usefulness, advantages and provision of an electronic workspace. Most students agreed with the fact that electronic communication tools facilitate the creation of active social contexts in which professional conversation leads to professional growth. There is still some resistance to get fully engaged in web-based courses, as shown by the 53% negative responses to item 5 above. The face-to-face communication with the teacher is still highly valued and wanted by the majority of the respondents.

GAINS FROM CURRENT EXPERIENCE

Several important issues emerged from this research experience:

- Students showed an increased interest and awareness in the use of technology.
- Classroom climate fostered motivation.
- Students showed trust and confidence in the use of listserv as a tool for immediate communication.
- The need to respect others' opinions.
- The provision of easy access to updated information about course content and methods.

- Awareness and willingness of trying new ways of learning through web-based courses.
- The instructional elements of structure in the conversation (content, bases for statements) and openness (general participation, responsiveness to student contributions, focus on complex issues) may provide a systematic way of thinking about the listserv dialogue and its use in the creation of ongoing discourses in education.
- The listserv can support ongoing interaction among participants only if the educational and social construction is open and not excessively structured.

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TEACHING AND LEARNING ON-LINE: LESSONS LEARNED

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Abstract

The enhancement of on-line education depends largely upon experiences and lessons we learn. This paper considers the on-line education efforts of three institutions and the lessons learned from their start-up experiences. The lessons learned reported in this paper could enhance and strengthen the on-line teaching and learning. The lessons should help those who are involved or would like to get involved in on-line education in any capacity.

KEYWORDS: On-line Teaching, On-line Learning, On-line Lessons Learned, On-line Education, Institutional On-line Experiences

INTRODUCTION

There is not yet a glut of courses taught via the Internet, but there is a growing abundance. Yet, many institutions of higher education are just beginning their exploration of the potential for extending their academic programs electronically to reach a wider audience. In the process of start-up and in the early stages, they often face the same obstacles and make similar mistakes as they try to find their place in this newly charted instructional space. This paper considers the efforts of three institutions and the lessons learned from their start-up experiences.

THE INSTITUTIONS

University A is a state-supported institution located in the sparsely populated northwestern United States. Its state is a vast territory with its population of less than one million that is spread over a land area of about 70,000 square miles. An electronic distance education program made sense for bringing the resources of the state's public campuses to citizens in every corner of the state. Like the two private institutions discussed in this paper, *University A* also wanted to extend its excellence and expertise beyond its region to a national or worldwide audience. As a public institution, the initiative for on-line education began with a state-approved plan and the award of a grant to develop and implement the program. For *University A* the on-line program began as a pilot in 1998, however, it has only reached the local learners.

University B for more than 100 years has maintained its home campuses in a large U.S. Midwestern urban region – a highly competitive college market. In the last two decades, the university has sought to expand its programming by setting up satellite campuses in several other states and at two sites in Europe. The institution actively seeks international opportunities and venues for program growth. This type of expansion seen as a natural progression for delivering its accelerated and very portable programs that have been designed for implementation away from home base. In this context, then, on-line education seemed the logical next step.

At the time the first on-line course program began, the institution was involved in senior leadership transitions. As a result, continuing education division was charged with pioneering the effort.

The on-line education program began as a research and development project. In the summer term of 1997, two courses were offered. One of these enrolled four students and launched the initiative. The numbers of courses and enrollments grew term by term. Currently some 30 courses are scheduled. Over this period, about 230 students have enrolled in on-line courses taught by more than 20 instructors. Most of the on-line instructors are full-time university faculty from the business and the arts & sciences.

At the outset, the parameters and objectives of the program were determined. All courses would be entirely asynchronous, though the system has the capability for real-time synchronous delivery. Since the intent was to offer the courses anywhere, anytime, and any place, the asynchronous model would ease problems with communication across time zones. A major objective of the on-line program would be to give both faculty and students experience in technologically mediated teaching and learning [Koohang & Durante, 1998]. It was assumed that faculty members would "cut their teeth" in this venture and then take their experience back to their own programs. Students would gain experience and comfort in the on-line classroom. Thus, it was agreed that some classes would be maintained with small numbers, as few as four or five students, in order to provide the opportunity to teach and learn on-line. The program was expected to run at a loss initially, then later on, on a cost-recovery basis. Last year, revenues began to exceed expenses.

Gaining faculty involvement was a personal effort. The two individuals managing the effort recruited faculty. Thus, personal contacts and word of mouth served as the main methods of securing instructors. Faculty training was accomplished mostly in one-on-one sessions, though several group introductions were conducted. Each instructor was provided with a "Teaching On-line" guide that contained customized pages with resources to help instructors in their specific discipline or field [Lane-Maher, Ashar, Durante, 1999].

The beginnings on-line efforts were modest. The initial courses consisted of putting course materials on a web page and conducting conversations via e-mail listservers. Then, an on-line classroom was developed that allowed instructor and students to interact with each other and carry out threaded discussions. Today, a reasonable, user-friendly message board or "On-line Classroom" is the course centerpiece that gives instructors direct control of the course materials -- eliminating the need for an intermediary technician. The new system also has capability for formatting, importing graphics, and downloading files including sound. The two program administrators monitored the 24-hour-a-day, seven-day-per week classes, solving problems and making referrals as required. Both faculty and students are offered this on-going resource for assistance.

This experiment is on the brink of institutionalization. The efforts spawned in this independent unit are being prepared to be seated within a larger university instructional technology base with complete on-line undergraduate and graduate programs. This includes a Bachelor of Science degree completion program, a Mater of Science in Business Administration, and a Master of Science in electronic commerce.

University C is located outside a major metropolitan area in the U.S. It is fiscally sound and draws a substantial residential and commuter population, with the greatest numbers being traditional-aged undergraduates.

On-line education efforts had begun in a limited way in the continuing education unit. Several courses had been offered in correspondence style using e-mail for about two years. A more elaborate effort began in earnest when grant funds were awarded to one college for this purpose. Plans were made to launch a complete graduate degree on-line.

With no experience in the comprehensive nature of this kind of undertaking, the institution contracted with an outside courseware provider to manage the courses, train faculty, and create an on-line campus site. With the courseware provider on-board, the continuing education division moved its e-mail courses to the new system and the liberal arts college added courses from the general education curriculum.

THE LESSONS LEARNED

The following is the lessons we have observed and learned by being involved directly in the design, development, implementation, administration and teaching of on-line courses. These lessons should help those who are involved or would like to get involved in on-line courses in any capacity.

LESSON ONE: THE ON-LINE STUDENT BODY

At the outset, *University A* draws only from its own students. *University B* believed that it would be able to expand its global enterprise by drawing students first from the U.S. and then the world. However, it soon discovered, as did other institutions, that 60 percent of its enrollees would be their own students who sought convenience. *University C* expected its general education offerings to draw only from its adult student population, instead, a fair number of on-campus residents were logging on from their dorm rooms.

LESSON TWO: FACULTY AND STUDENTS EXPECTATIONS

In general, the literature has told us that the distant learner is an individual of self-reliant means who is self-motivated, self-disciplined, and a good time-manager [Dunkley, 1997; Koohang and Durante, 1998]. Faculty in all the case institutions expected highly motivated, technologically capable students. While this may be characteristic of some on-line learners, it is often not the case. Students often see the merits of convenience in an on-line course, without considering that it is likely that the course will take about as much or sometimes more time and effort as any classroom course. Further, because a computer screen frames the course, students frequently expect some similarity in the way the course is presented and the "cool" web sites they enjoy. Instructors find that the on-line learner is a different type of distance student, one that may require a substantial amount of attention to keep him/her engaged.

LESSON THREE: PARTICIPATION

At the outset, everyone is apprehensive, faculty and students alike. The apprehension elicits several responses that we have observed over and over. Among the novices, students may hold back waiting for others to participate first. In the regular classroom, an incorrect response will evaporate into air. But on-line posted words are there for all to read again and again. Instructors often find it necessary to have private e-mail or telephone conversations with new students to reassure and motivate them.

On the other hand, students who have taken one or more on-line courses may think they can "ace" the system. In one example at *University B*, a student enrolled in a course requiring two major assignments and participation in on-line discussion decided that he could get a passing grade if he only handed in the assignments. He was absent for about two-thirds of the course. To deal with this, the instructor posted an incomplete grade and required the student to retake the discussion portion of the course in the next round if he wished to pass. The physical absence removes the discomfort of confrontation with the instructor so it is possible for the student to set a personal agenda that is very different from the course objectives.

LESSON FOUR: THE NEWNESS OF THE MEDIUM AND THE LEARNER PROFILE

The newness of the medium can draw the inexperienced computer student who may not know how to use basic e-mail features and becomes further confused by the courseware. At *University C*, the courseware provider's help desk might take more than 24 hours to respond to a student's problems.

(More will be discussed later on lessons learned regarding vendors.) The delay panicked several already anxious students, who felt that they were losing ground in the course. They withdrew from the course.

In all the three universities many novice computer users registered for on-line courses. This created chaos for both the students and the faculty. Students expected to be taught the basics of computer operation. In one particular incident in *University B* one student called the faculty and asked, "what is an e-mail? And where do I get one?" In all cases, students were advised that in order to take an on-line course they had to demonstrate proficiency in on-line computer literacy, i.e., surfing the Internet, using an e-mail, etc. We believe that the communication processes must constantly be strengthened and information about the learner profile must disseminated to students through various communication processes (More will be discussed later on lessons learned regarding communications)

LESSON FIVE: COURSEWARE PROVIDERS

University C is the only institution that contracted with a courseware vendor. Like most, this institution had a certain level of naiveté in the delivery of on-line education. Conceptually it believed its program would work smoothly if it consigned the details of technology and customer service to "experts." The vendor promised a proven courseware package and would work with university offices to create on-line registration, payment, class lists and other administrative tasks.

The most important lesson learned in this arrangement is that institutions must constantly keep in mind that on-line course delivery is still new, still in the process of becoming what is conceptualized today. Most vendor organizations are recent entrants into the marketplace with only few years of experience. In the case of University B, its vendor had a technically useful product but the organization was teetering under too great a workload and a staff whose non-technical skills did not match the needs of its clients. In the sales pitch, of course, this could not be known.

The subsequent difficulties in responsiveness to students and faculty as noted earlier were compounded by promises made for product upgrades that could not be delivered on time and a seeming disconnectedness among the vendor's staff. As a result, the vendor has lost the confidence of the institution's faculty – without those willing to teach, there can be no on-line program.

The conclusion is that many courseware providers are just too new in a new business. Institutions must take a long hard look and ask critical questions and sign only when confident that the organization is up to the assignment.

It is our view that on-line start-up should begin as an in-house project, whether the institution is public, private, well funded or not. This approach provides maximum control as well as maximum flexibility.

LESSON SIX: TECHNOLOGY

The appropriateness of the technology in two of the universities was not assessed by the decision-makers in the beginning. As a result, the software and hardware were in conflict and that created server downtime and student disappointments. It is extremely important that the decision-makers in institutions assess the hardware and software before they start on-line programs.

LESSON SEVEN: FACULTY SUPPORT & TRAINING

While training was critical in the continuing education enterprise of University B and is offered by courseware provider in University C, there have been some cases where the full support for faculty was not present. Training was either insufficient or did not occur at all. Most of the time the blame was put upon the lack of funding. There was no dedicated team of technical people assigned to assist the on-line faculty when they needed help. For a successful on-line program, faculty training must occur constantly. Professional development funds should be set aside to support beginner faculty and enhance the development of more experienced [Seymour, Durante, & Koohang, 1999].

LESSON EIGHT: MAXIMUM BENEFIT

We quickly learned that students who were successful in completing an on-line course had access to a computer at home a "dedicated" phone line, and an ISP. They had basic knowledge of computers and could create, change, remove, upload, and download files. They could compose, customize, receive, forward, save, print, delete, and add attachments to e-mail. These students had experience using word processing software. They could also read, reply to, and initiate a thread in newsgroups.

LESSON NINE: THE HARDWARE, SOFTWARE, AND OPERATING SYSTEMS

University B and *University C* had communicated to students in the beginning about the minimum specifications of hardware and software. These specifications were posted on the Web site and the on-line course catalog they had received. In some incidents, there were some students who would call the university two weeks after the course had started and complain about not being able to get connected to the University's Web site to start doing their assignments. With the help of the University technical support, we learned that were using old computers that cannot support the Internet although they had subscribed to an ISP, but never got connected to the Internet.

LESSON TEN: THE MISCONCEPTION

In some incidents, there were students who treated the on-line courses as independent study courses. Although they were told that the courses had definite educational objectives tied to specific course content. As a result, they would not participate in the course and thought that turning the course assignments would be sufficient. This misconception must be communicated with the students and instructors must emphasize the importance of participation over and over during the length of the course.

LESSON ELEVEN: STUDENT TIME SPENT FOR AN ON-LINE COURSE

Serious on-line students spend a bit more time completing an on-line course as they would taking it in a traditional, classroom-bound, format. However, they expressed positive attitude toward on-line learning. Almost always they said that would take another on-line course. Early on they find out that due dates for assignment and projects are as "real" as they are in a traditional format.

LESSON TWELVE: PERSONAL MOTIVATION

On-line learning assumes a high level of maturity and professionalism on behalf of students. They should be designed to make learning more convenient but no less rigorous. We found out that it is very easy for some students to "forget" doing their work because there is no formal class time. Personal motivation plays an important role in completing an on-line course successfully. For this reason, students who are taking on-line courses must be self-disciplined and personally motivated.

LESSON THIRTEEN: THE ON-LINE FACULTY

With the highly collaborative nature of on-line program design, faculty should still maintain responsibility for curriculum design and content in their disciplines or fields. To assure integrity of on-line delivery, full-time faculty are hold responsible for the management and coordination of their on-line courses and programs. This must be supported by Technical staff who will assist the development of course design including, student assessment tools, data collection, course archiving, and evaluation. Together the academic (including library) and technical areas must work to facilitate the means for on-going review so that course resources are current [Seymour, Durante, Koohang, 1999].

Most on-line instructors express that they have to spend more time teaching an on-line course as teaching it in a traditional, classroom-bound, format. However, they think teaching on-line is fun and rewarding experience.

LESSON FOURTEEN: ON-LINE COMMUNICATION

This communication lesson is an important one as we have referred to it in some lessons learned above. The task in development of new on-line course is based in communication [Seymour, Durante, Koohang, 1999]. No matter how expert at the computer one may be, as we noted earlier, the on-line learner and the instructor may experience a high level of anxiety at the outset of an on-line course.

Setting expectations and meeting them early on and consistently communication these expectation to the learner will allow the program to move forward productively with effort spent on teaching and learning. In general, the on-line course tends to rely heavily on language and the way it is communicated. The written word is at the center of most courses.

Through communication on-line community must be built. We have learned that on-line community building early on contributes to the retention of students. It also helps ensure the integrity of on-line learner work and the credibility of the degrees and credits the institution awards.

CONCLUSION

The enhancement of on-line education depends largely upon the experiences one acquires by directly being involved in the design, development, implementation, administration, and/or teaching of on-line courses and programs. The lessons learned above can certainly enhance and strengthen the on-line learning, as the technological paths on the Internet are open with constant introduction of new options and experiences for teaching and learning on-line.

The implementation of on-line programs requires teachers and students to approach and accomplish their objectives in entirely new and creative ways. The change from a traditional face-to-face method of instruction to the one that has a promising future requires constant guidance, directions, and evaluations.

The lessons we have learned in the last several years have helped us to create and implement better on-line courses and programs. We recommend that those involved or interested in the design, development, implementation, administration, and/or teaching of on-line courses and programs to take our lessons learned to heart.

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USING WEB-ENHANCED COURSES FOR CASE-BASED INSTRUCTION IN TEACHER EDUCATION: TRIALS AND TRIUMPHS

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Abstract

The typical home, workplace, and classroom are no longer bound by four walls. Because telecommunications open up new possibilities, the University of San Francisco's Special Education and Teacher Education faculty extends the walls of college classrooms to explore expanded educational possibilities by using web-based telecommunications to support courses. Cases are used on the web to develop reflective thinking, problem solving, and pedagogical content knowing. The advantages and disadvantages of using cases on the web in teacher education have been determined and the faculty is preparing for data collection to explore the outcomes.

KEYWORDS: Case-Based Teaching, Web-Enhanced Cases, Teacher Education, Internet

INTRODUCTION

Since there is general agreement between government and business regarding the urgency of connecting U.S. schools to the web, teacher education programs must focus on this resource [Schwartz and Beichner, 1999]. Preservice teachers must be prepared for new technologies. In addition, there is never enough time during teacher education classes for optimal teaching and learning. Thus, the Internet can also be an effective tool for instructional extension and student teacher support. Teaching cases on the web can further extend learning experiences and increase pedagogical content knowledge by turning course websites into problem-solving forums. Teacher education programs are just beginning to develop such learning opportunities in technology [Thomas, et al, 1997].

RATIONALE

Higher education has entered a new technological era. Many universities are requiring that courses be tied to websites [Noble, 1997], while others, such as the University of San Francisco, are simply providing opportunities for training and course web support. Teacher education must take advantage of this by preparing students to bring the Internet into their classrooms and access the "information highway" [Male, 1994]. This highway can benefit both teachers and their students beyond just the acquisition of information if the proper structures are in place to expand collaboration, reflective thinking, and pedagogical content knowledge.

Shulman [1987] identified pedagogical content knowledge as an important aspect of the knowledge base for teaching. It is a way of knowing that allows teachers to take subject matter and turn it into comprehensible instruction. Shulman [1986] also argues that cases provide case knowledge, which is tied to more than just awareness of events. Case knowledge connects events to a larger theoretical construct that helps students develop the patterns of thinking necessary for coping with complex situations that have no clear resolutions [Wasserman, 1994]. The increasing complexities teachers must face in today's classrooms have caused teacher education to expand its focus to include reflective decision-making and problem solving [Doyle, 1990] using cases. Lacy and Merseth [1993] discuss the advantages of using web-based cases in teacher education. They argue that the web allows asynchronous case-discussions, electronic communities of inquirers are developed, and on-line discussions tend to evolve from specific and contextual topics to broader conceptualizations.

FEATURES OF USF WEB INSTRUCTION

The University of San Francisco School of Education's course-specific websites are not used exclusively for distance learning. In most instances, our websites provide instructional support to our on-campus courses with the following features:

(1) Student access to teaching lecture notes, agendas, and assignment calendars;
(2) Quiz-taking and scoring capabilities;
(3) Course-contained e-mail system;
(4) Bulletin boards to inform students of new information and to support posting of discussions;
(5) Chat group facilities;
(6) Individual note taking records;
(7) Sources for obtaining information--glossaries and references;
(8) Instructor monitoring of student website use;
(9) Recordkeeping and grading capabilities;
(10) Communication and problem-solving activities using teaching cases.

CASES ON THE WEB AT USF

Web-enhanced case-based instruction at USF has many forms. Cases may be fictitious, may be written by actual classroom teachers, or may be critical incidents written by the students themselves. They may be exemplars, problems, or precedents. Students may be asked to read a case on the web and form chat groups to analyze and discuss possible solutions to bring up in a following class. Students may study a case in class and then chat on-line at home about appropriate teaching methods for the teacher in the case. They may also develop curriculum for the teacher in the case to use. Students may collaborate on-line about their own critical incidents in order to generate multiple perspectives and teaching strategies. Students can receive feedback on-line and revise their cases or their responses. Cases are sometimes used as on-line course quizzes to test practical application, instructional design, transfer of learning, decision-making ability, level of reflection and analysis, or pedagogical content knowing.

FORMATIVE EVALUATION

Web-enhanced case-based instruction has advantages and disadvantages for both faculty and students. There are many advaniages. Students have the opportunity to review each session's cases before, during and after class. There is extended time for teamwork and joint problem solving. Interactions need not occur in "real" time. Asynchronous bulletin board communications stimulate conversations that cannot occur in class. Synchronous chats can also be arranged, in or outside class, or with others outside the course, such as those at other universities or field practitioners. Reflection, collaboration, and feedback is expanded--teacher to teacher, teacher to student, student to student. Students are more in charge of their learning due to increased ability to comment to the instructor and collaborate with classmates and others. Also, databases can be developed on the websites that share "best practices" and resources.

There are also disadvantages. Initially, it takes extra time to learn to use the software and set up the course features. Video files can be too large to download onto the web. Students may not have equal access to the web due to limited technology or network overload. There continues to be copyright concerns and issues--who owns the rights to lecture notes and course cases that go out onto the web? Are materials on University-supported websites the property of the University or the professor?

Those at USF successfully using web-enhanced case-based instruction are convinced that the advantages outweigh the disadvantages. In addition to increased exposure to technology, students reflect on and apply learned knowledge and skills. The project has expanded to include feedback from the actual classroom teachers of the students described in the cases. The project's student teachers have the opportunity to then write their own case dilemmas and respond to eachothers' case dilemmas, providing multiple perspectives and diverse feedback. Discussing and solving case problems helps to develop case-based reasoning and appears to increase pedagogical content knowledge, which may assist with the application of learning to real-life school situations [Shulman, 1987; Cochran et al, 1993].

OUTCOMES

Empirical research on the use of web-based cases is scarce at this time; however, there are a number of teacher educators who have presented examples using combined hypermedia and case-based teaching to enhance learning. Goldman, Barron, and Witherspoon [1991] report that a hypermedia environment allowed students to work through cases individually or in pairs, before or during class. Risko, Yount and McAllister [1991] found that using hypermedia cases caused students to be actively engaged in their own learning, to generate questions and hypotheses, to elaborate on multiple perspectives, and to demonstrate higher order thinking. McNergney [1994] developed a team case competition, which then became a virtual version on the Internet [Kent, 1995]. Kent [1997] describes positive student evaluations using a multimedia case on the web.

Evaluation projects underway at USF will lead to future research and applications using cases and the web. The impact of web instruction will be examined [Davies, 1995], including a comparison web-based and nonweb-based case instruction. Level of reflection when writing and responding to cases will be analyzed by themes, such as maintaining a critical stance, questioning assumptions, and recognizing ambiguities [Harrington, 1997]. The development of collaborative learning communities will be assessed [Palincsar et al, 1998]. Curricular and instructional adaptations when writing lessons for cases will be analyzed [Hutchinson, 1996]. These critical evaluation projects are just the beginning but will frame the direction of web instruction in the future. The faculty of the University of San Francisco's School of Education is committed to innovative, interactive teaching based on the application of theoretical principles and the results of sound research methods.

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ONLINE INSTRUCTION VIA A DYNAMIC ROVING COMMUNITY

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Abstract

E-mail, chat rooms, bulletin boards, and virtual conference centers are widely used methods to provide online learning formats. But those methods are limited because instructors and students are unable to simultaneously explore the Internet and interact with each other. That limitation can be overcome via IRC (Internet Relay Chat) software that provides instructors and students the means to create a DRC (Dynamic Roving Community). This paper discusses basic concepts that underlie a DRC, how to obtain IRC software, ways to promote the acceptance and use of a DRC by students, and ideas to enhance its use once it has been adopted.

KEYWORDS: Distance Education, Online Instruction, Virtual Classroom

INTRODUCTION

Free and user-friendly IRC (Internet Relay Chat) software like ICQ®, MSN (Microsoft Network) Instant Messenger®, AOL (America Online) Instant Messenger®, and Gooey® can be used to create a DRC (Dynamic Roving Community). A DRC occurs in a learning setting when instructors and students, although physically separated, tour" or "surf" the Internet together in real-time so that the Internet truly becomes a "virtual classroom."

This paper is intended to provide a basic overview of a DRC and its potential to enhance online instruction. In order to achieve that objective, discussion will be focused upon five areas: (1) a definition of key terms, (2) limitations, (3) some resources to learn about and obtain IRC software, (4) the author's insights gained from using a DRC: and (5) some suggestions to enhance the use of a DRC.

DEFINITION OF KEY TERMS

Seven key terms need to be defined. They include: (1) "IRC," (2) "DRC," (3) "online instruction," (4) "asynchronous instruction," (5) "synchronous instruction," (6) "Internet," and (7) "World Wide Web."

IRC (INTERNET RELAY CHAT)

According to Levine, Baroudi, and Levine Young (1998), IRC refers to a system that allows persons on the Internet to communicate with each other in real-time (as opposed to e-mail in which there is an interval or delay). To use IRC, participants must be connected to an IRC server - an Internet host computer that serves as a switchboard for IRC communications. Virtually any ISP (Internet Service

Provider) can set up an IRC application for an end user. However IRC applications such as AOL Instant Messenger® and MSN Instant Messenger® are probably the most widely known and utilized because they are featured by two of the most heavily used ISPs [Hamman, undated; Lash, 1999].

DRC (DYNAMIC ROVING COMMUNITY)

Software engineers at Hypernix Incorporated, the firm that developed and licenses Gooey®, coined the term "Dynamic Roving Community" [Andover News Network, undated; Festa, 1999; and Oakes, 1999). The term "Dynamic Roving Community" refers to two or more online users who use the software to enable them to browse the same web site and chat in real-time.

ONLINE INSTRUCTION

"Online instruction" has been used to describe a host of computer-aided instructional formats [Ehrmann, 1996; Woody, 1999]. For the purposes of this discussion, "online instruction" refers to instructional formats that involve the use of the Internet.

ASYNCHRONOUS INSTRUCTION

"Asynchronous instruction" herein refers to a *pattern of communication* typical of what occurs in a physical classroom; i.e. communication among learners and the instructor is dynamic, not predetermined. For example, when students and an instructor interact real-time in a chat room or via instant messaging software they exhibit the "start-stop" or intermittent pattern of data transmission known as "asynchronous communications" in the field of computer science [Webopedia, 1998a]. A videoconference is another example of asynchronous instruction because the participants may talk or listen whenever they like.

SYNCHRONOUS INSTRUCTION

"Synchronous instruction" herein refers to a *pattern of communication* that is not typical of what occurs in a classroom; i.e. communication among learners and the instructors is predetermined and/or does not occur in real-time. In the field of computer science, synchronous communication refers to data transmission that occurs at regular intervals and/or a predetermined levei [Webopedia, 1998b].

INTERNET AND WORLD WIDE WEB

The "Internet" is a global computer network whereas the "World Wide Web" refers to the use of HTML (Hypertext Markup Language) programming that overlays the Internet and allows users to go from one web page or web site to another [Berners-Lee, 1999]. But the terms are used interchangeably to such an extent that the delineation holds little practical value [Gates,1996]. Consequently, for the purposes of this discussion the term "Internet" refers to the "whole" that includes the global computer network (the Internet) and the HTML pages (the World Wide Web) that overlay the global computer network.

LIMITATIONS

It is easy to confuse the terms "asynchronous" and "synchronous" as applied to instructional formats if one focuses upon the scheduling of learning events (class sessions) rather than the pattern of communication that occurs among the participants [Distance Education Clearinghouse,1999]. For example, if a class is held at a regular time via a chat room then it is "synchronous" in terms of scheduling. However, if learning occurs via e-mail and bulletin boards (as opposed to real-time via a predetermined schedule) then the de facto scheduling is asynchronous. It is important therefore to ensure that there is no confusion when the terms "asynchronous" and "synchronous" are used in this paper. The focus is upon the pattern of communications among participants as opposed to the scheduling of learning events.

This paper should not be construed to suggest that one format is inherently superior to another. This paper is merely intended to identify a new / emerging format for online instruction that is easily used in concert with current and future formats.

As is the case with any information technology, what is used today has its origins in earlier technologies. This paper therefore is not intended to infer that IRC software applications mentioned in this paper are the first of their type.

This paper is neither a commercial endorsement of the software products mentioned in this paper nor a guarantee of their performance (this caveat applies equally to this author and to WACRA® and its members and board). The software products mentioned in this paper represent (in this writer's opinion) the most widely used, inexpensive, user-friendly products of their type available. Results of their use will vary according to individuals' computing skills and computing environments (i.e. ISP, hardware, bandwidth, telephone / network connectivity).

RESOURCES TO LEARN ABOUT AND OBTAIN IRC SOFTWARE

SOFTWARE MENTIONED IN THIS PAPER

The software mentioned in this paper is free and can be obtained via download over the Internet. To obtain AOL Instant Messenger® go to the home page of America Online (www.aol.com). Gooey® can be obtained at the Hypernix Incorporated home page (www.hypernix.com). ICQ® software is available at the ICQ home page (www.icq.com). MSN Instant Messenger® is available at the MSN home page (www.msn.com).

GENERAL INFORMAITON ON IRC

In addition to the sources cited in this paper, there is a multitude of resources available online. Indeed, they are so plentiful that a full discussion of them is beyond the scope of this paper. It this writer's intention therefore to present a few of most useful resources available.

However readers should note two things. Firstly, the Internet changes rapidly. Secondly, computing conditions vary. There is no guarantee consequently that every URL (Universal Resource Locator) presented in this paper will be operative and accessible all the time.

Some of the most useful resources this writer has accessed include:

- Matisse's Glossary of Internet Terms (http://www.matisse.net/files/glossary.html)
- Internet Relay Chat Communication Articles Storage (http://www.uq.oz.au/~ensrinte/ircindex.html)
- The home page of ichat! [sic] (http://www.ichat.com/)
- Internet Relay Chat Help (http://www.irchelp.org./)
- RFC1459 - Internet Relay Chat History (http://www.cis.ohio-state.edu/htbin/rfc/rfc1459.html)

INSIGHTS GAINED USING A DRC

THE LEARNING CONTEXT

A DRC was used to supplement the web-supported learning format in the MBA Program offered by National-Louis University (NLU). This writer is assigned to the NLU campus in St. Louis, Missouri (NLU 's main campus is in Chicago, Illinois).

The web support site for NLU 's MBA Program is a bulletin board that serves as an archive of programmatic information as well as a place where students and instructors may post materials and converse via text messages. The NLU MBA Web Support Site (http://www.nl.edu/nlu_mbawebsupport/index.html/) has been in operation for approximately two years.

Participants in the MBA Program are working adults, generally mid-career managers in their late 30s to early 40s. Classes range in size from twelve to fifteen students and feature a highly interactive mode of learning that includes seminar style discussion, role-play, simulations, self-assessment, and group / team assignments, and case studies.

APPLICATION OF DRC

DRC was initially used as an "extra credit" activity for students taking MBA 508 "Managerial Economics." The students downloaded Gooey® and set up a "web tour" that included a predetermined time and meeting place at a web site. URLs for various web sites that made up the tour were also predetermined by the students and distributed among them via e-mail.

Student feedback was generally very positive. The software is easily mastered and students enjoyed being able to communicate with others while visiting web sites. In order to reinforce the use of the DRC, an extra credit activity was incorporated into the next course the students took (MBA 510 "Macroeconomics"). The writer of this paper (the instructor) led the second tour.

Instructional Strategy

As is the case with any technology, DRC will be of little value if it is applied sans an instructional strategy. The second web tour featured six strategies:

- "embedded learning" (i.e. concepts on web site design and computing were used to stimulate discussion regarding each site visited);
- "relevance" (i.e. the tour featured sites that were mentioned in texts or readings);
- "resources" (i.e. the tour featured sites which provide primary information such as indices of economic performance);
- "simulation" (i.e. the tour featured an online economics textbook that includes graphs and charts with data inputs that may be manipulated to demonstrate economic principles);
- "role models" (i.e. the tour featured sites that had news and information on a key or well-known person such as Alan Greenspan);
- "case study" (i.e. the tour featured a company's web site with its annual report and news sites that contained stories on that company's performance).

Obviously, a tour could be organized using one or some combination of the strategies. Readers desiring a more formal and comprehensive rendition of instructional strategies are encouraged to peruse works by Kolb [1984], Porter and McKibben [1988], Wadduck [1991] and Vaill [1996].

Overcoming Student Anxiety and Resistance

People expect to be rewarded for trying something new [Welbourne & Gomez Mejia, 1995]. That is why DRC was used as an extra credit assignment.

A student "confederate" was identified early on [Howell & Higgins, 1990]. The instructor noticed a student who possessed a high degree of technical competence and who seemed motivated to facilitate the first "student-led" tour. That individual also served as a "role model" for the other students.

Few people accept change or innovation quickly. Most people need time to adjust. That is why DRC was used in two consecutive courses. In addition, DRC was demonstrated in class and discussed during the first three classes of each course in order to overcome anxiety and resistance.

This writer therefore employed "successive approximation" [Skinner, 1971]. "Successive approximation" is technique in which a subject is exposed to adverse stimuli on a progressively larger scale until the subject is comfortable dealing with the stimuli or at least able to handle the fear and discomfort of being exposed to it [Luthans & Kreitner, 1985].

ENHANCING THE USE OF A DRC FORMAT

There is no single "best way" to learn or to teach. There exists no technological panacea that can overcome all the challenges associated with the task of effectively motivating students and conveying course content online. That is why readers are encouraged to experiment with the ideas presented herein and to identify additional ways to enhance DRC as an instructional format.

After using DRC, this writer identified six ways to enhance the use of a DRC:

- have students "surf" together during a teleconference in which they discuss or critique each web site they visit;
- distribute an e-mail message that is a "web tour guide" that includes URLs and summaries of the sites that will be toured (an alternative is to send an e-mail with an attachment, e.g. an MS Word document, containing the URLs for the sites to be visited and summaries of those sites);
- conduct a web tour and afterwards have students compare their communication patterns in cyberspace versus their communication patterns in person;
- give students learning materials that are to be used during the web tour, e.g. a list of discussion questions pertaining to each site to be visited;
- have a "guest speaker" meet students at a web site for an online chat session or have a "guest host" take students on a web tour;
- conduct peer-tutoring sessions at a "virtual lab" or "virtual study hall."

SUMMARY

The Internet is a powerful instructional tool because it provides instant access to an incalculable amount of information that is often presented in a highly interactive and engaging manner. Educators use e-mail, chat rooms, and bulletin boards to promote usage of web-based resources and to conduct online instruction. However e-mail, chat rooms, and bulletin boards are limited because they do not provide the means for students and instructors to interact while "surfing "the Internet.

This limitation may be overcome via software such as Gooey®. For example, Gooey® enables students and an instructor to interact with each other in real time while "surfing" the Internet. Consequently, the class becomes a "DRC" (Dynamic Roving Community) and the Internet becomes a virtual classroom.

This paper presented basic concepts that underlie the use of a DRC in addition to an overview of widely known, free, user friendly software that makes a DRC instructional format feasible. This paper also covered methods to promote the use of DRC, especially ways to overcome typical student anxieties regarding the use of computers and the Internet. Lastly, this paper enunciated techniques to extend or enhance the use of a DRC instructional format.

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INTERACTIVE MULTIMEDIA SIMULATIONS IN MANAGEMENT EDUCATION: PRESENT STATUS AND FUTURE DEVELOPMENTS

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Abstract

Interactive simulations using multimedia technology continue to be popular as a way of delivering management education. The paper explores the reasons for the continuing interest and discusses their present status as teaching and learning tools. A scenario for the future of management education is proposed and new developments in interactive multimedia simulations are examined in this context. The paper concludes that multimedia simulations will become a significant part of the campus and distance learning environment.

KEYWORDS: Interactive Multimedia, Simulation, Management Education, Future

INTRODUCTION

As student learning patterns change and educational technology advances, multimedia is rapidly being applied to management education. An important development is the growing use of interactive multimedia simulations to teach strategy to individual students and small student teams. The simulations, popular as course supplements in marketing and corporate strategy, respond to the interest of students to learn in an interactive classroom and apply the concepts from the courses they study. By design, the simulations also provide a realistic format for integrating disciplines and giving students a more comprehensive perspective on management. The emergence of on-line and distance learning is also changing the locations where students learn and practice management. Information technology, used in the distance learning format, is bringing students and educators from remote locations together by using the latest technologies to communicate information. Although only now emerging, interactive multimedia simulations promise to become a significant part of the traditional campus and distance learning environment as new technology enables the simulations to be used by students around the world.

In view of their exceptional promise as teaching and learning tools, little has been written examining the new simulations from the perspective of their present status and future promise in management education. The purpose of this paper is to:

1. Discuss the current status of interactive multimedia simulations in management education.
2. Propose a scenario for the future of management education.
3. Examine the future of interactive multimedia simulations in management education.

THE EVOLVING MULTIMEDIA SIMULATION

Multimedia is a term that has been in use for many years [Emerson and Mosteller, 1998]. It refers to presentations which may use text, graphics, animation, video and audio stored on a computer disk or a CD. Interactivity refers to communication between an individual and a computer (for example) made possible by digital technology [Stemler, 1997]. Simulations use digital technology to create realistic business environments which serve as a laboratory for learning and applying theory, exploiting the power of teamwork and practicing interactive thinking. When used in academic settings, simulations provide students low risk opportunities to make decisions, quickly learn the results of decisions and practice the application of concepts [Alpert, 1993].

Two different types of interactive simulations are used in management education. The traditional batch simulations describe those where decisions are submitted by students prior to a deadline and processed by a computer. These simulations evolved over the past 30 years and are somewhat passive in the sense that student teams made decisions at about the same time and waited for the monthly, quarterly or yearly results to be made available. Student teams used the time period between receiving the results and the deadline for the next set of decisions to deepen their understanding of the simulation and make changes in strategy. The early batch simulations ran on mainframe computers, but recent versions have been adapted to personal computers and computer networks. By design, the simulations capture the competition and strategic interaction among several firms managed by student teams in a simulated industry [Burns and Gentry 1992]. The simulations have been used successfully for many years to provide a competitive team learning experience in marketing and corporate strategy courses [Mason and Perreault, 1995] [Thompson and Stappenbeck, 1999]. Batch simulations are popular and regularly revised with new features and options for educators.

Interactive simulations are educational products of the most recent decade; evolving during the 1990's. These simulations, available on computer disk and CD describe those where students operate a simulated business from an interactive control panel on a computer terminal and receive almost instant results. Without leaving the computer, students can experiment with decisions in "real time" as they learn the industry, the business and the underlying principles modeled by the simulation. The rapid response and personalized feedback features of interactive simulations means decisions are quickly linked with results and the learning experience is compressed in time and space. The simulations also enable students to replay decisions without leaving the computer, thus encouraging continuous operation and informal discussion to reinforce learning.

Interactive simulations use internally programmed (computer generated) competition to create a competitive environment. The new generation of interactive simulations are widely used as self-paced exercises for individual students, but they are also suitable for small student teams. However, the competitive aspect, where student teams compete and interact in an industry, is absent. Simulation performance is based on the strategy and decisions of a single team and the team's understanding of the models used to construct the simulation. Team competition is achieved by creating assignments whereby team performance can be compared by using common simulation parameters for all participants.

THE INTERACTIVE MULTIMEDIA SIMULATION-PRESENT STATUS

Several firms are marketing interactive multimedia simulations for entertainment (video games) and electronic commerce, but Harvard Business School in conjunction with High Performance Systems, Inc. is at the forefront of multimedia technology for management education. Harvard Business School Publishing offers CD-based simulations for marketing, service management, corporate strategy and entrepreneurship courses. *Managing Customers for Profits* is a 20 quarter business-to-business simulation based on marketing management in the packaging industry [Narayandas and Peterson, 1997]. *Building Service, Driving Profits* is a simulation where users make decisions on spending for employee training, replacing infrastructure and making other changes to improve the performance of service organizations [Richmond and Gannon, 1996]. *Balancing the Corporate Scorecard* is ideal for corporate strategy, management control, accounting and general management courses. The simulation focuses on performance management in a small producer of data mining software in the computer industry. Students run a dynamic business and monitor a set of 20 Balanced Scorecard metrics over 16 quarters [Richmond, Bourne and Beznoska, 1999]. *Launching a High-Risk Business* can be used for entrepreneurship courses. Students learn the fundamentals of managing a new high-tech, high-growth enterprise from business plan to initial public offering [Richmond et al, 1999]. The Harvard simulations make extensive use of multimedia technology including text, printable graphs and tables, audio and video commentary, email, financial records, personalized coaching tips, research and theory and systems thinking to teach students decision making and business management. The simulations also have different market and competitive scenarios, budget options and performance metrics to add variety and challenge for students and assignment options for educators.

The present Harvard multimedia simulations use learning theory in their designs, but the content and format need to be improved. Present versions lack a global or international perspective, they have small video screens and they have technology and licensing limitations which complicate their use in on-line and distance learning. These limitations are temporary. With the rapid growth in distance learning, global and weekend MBAs, and other off-campus learning opportunities competitive forces will lead to improvements in present multimedia simulations and in the educational simulations under development.

USING INTERACTIVE MULTIMEDIA SIMULATIONS

Different approaches can be used to apply interactive multimedia simulations to campus and distance learning environments. However, licensing issues and technological support continues to constrain their use. While disk-based interactive simulations can be installed on stand-alone personal computers or networked on local area networks (lans) and the Internet, not all CD-based multimedia simulations can be networked. Students must purchase individual CD's and use them on personal computers or have access to a facility where the university was able to purchase a site license and install the simulation on a lan or on the hard drives of laboratory computers.

Once students have the CD's or access to a university computer facility they can use the simulations on campus or in distance learning applications as self-paced exercises or with small student teams. Remote teams can meet face-to-face or virtually to complete assignments and email them to the instructor who returns diagnostic reports and/or posts comparative student or team results on a web site. Instructors can also set up bulletin boards and chat rooms to stimulate student interaction and create interest in the simulation. The situation is not yet ideal, but creative instructors can piece together various technologies to create an interactive teaching and learning environment. Fortunately, important technological improvements are on the way.

A SCENARIO FOR THE FUTURE OF MANAGEMENT EDUCATION

Management education is undergoing significant restructuring as educators rethink its future. The changes are being driven by the emergence of a global market for management education and advances in communications technology. Some schools are updating curriculums and others are establishing education centers in new locations of the world or offering on-line management education. In spite of these trends and changes, attempts to predict the direction of management education should be viewed with some skepticism. However, obvious trends can be forecasted with reasonable certainty to provide useful insight. The trends include: the increasing complexity of management education and powerful ongoing forces such as globalization and information technology. The following scenario is based on observable trends. It provides a backdrop for thinking about the future of interactive multimedia simulations.

INCREASING COMPLEXITY

In the future, a student's management education will not have to be confined to a single university or campus. Economics and time constraints will encourage students to attend some classes via the Internet or learn by experience, interacting with educators and classmates using advanced computer networks and communication technologies [Pearson, 2000]. Virtual learning environments will probably be widespread within a few decades. A key trend to watch will be the movement toward any time and any place learning made possible by substantial investments in information infrastructure. The traditional campus educational experience will be modified and supplemented with on-line learning and distance education. To accommodate the changing learning patterns of management students, curriculums will become more complex because of the need to offer alternative locations and degree options to students wishing to combine education with employment and leisure.

GLOBALIZATION

Global universities and global education will slowly emerge as technology is used to connect students and faculty around the world [Cornish, 1996]. Students will spend less time at the university campus and some will prefer to learn from an outstanding global educator appearing on a computer terminal or television screen. The emergence of English as the language of business will make it possible for educators to communicate simultaneously with students from many nations. To fully utilize the global educational opportunities available, students will demand fast access to computer networks, high speed browsers and high quality video. Management programs will become increasingly multi-cultural as students from different parts of the world learn together. Course designs and teaching methods will become more flexible to accommodate cultural differences and the globalization of management education.

TECHNOLOGICAL INNOVATION

Management education will be dramatically enhanced by multimedia, computer simulation, virtual reality, and the Internet [Cornish 1996]. Multimedia inter-connectivity will allow students to interact seamlessly across diverse media and geographic borders. Highly engaging and effective educational products should become available which will permit most students to learn on their own or in virtual classrooms designed for group collaboration. Computerized multimedia courses will reduce the need for constant instruction, but management students will still want some faculty guidance and motivation to stay focused on the material they need to learn. Distance and online education will allow students to take courses at their own pace and receive credit when they have mastered the material. Massive information sources and data bases will be available to management students to access when preparing reports, papers and presentations. The challenge for management students will be to decide what is essential to learn and use for their assignments [Cornish, 1999]. The challenge for faculty will be to remain involved in the teaching and learning process in spite of the forces encouraging intellectual and personal detachment. Institutions will have to help faculty develop the necessary skills to properly exploit the new technology.

THE FUTURE OF INTERACTIVE MULTIMEDIA SIMULATIONS

How will the changes anticipated in management education impact the future use of multimedia technology? Perhaps the most important factor will be the Internet [Atwong and Hugstad, 1997] [Natesan and Smith, 1998]. Already widely used as a communication device and research tool, the Internet will also impact the future of multimedia simulations in management education. CD's as the delivery format for multimedia simulations will slowly fade as technology makes it possible to put the same information on the Internet and improve access for students [Pelton, 1996]. Simulation developers will play an increasingly important role in the adoption of their products by assisting faculty with the administration of the simulations. These services will include customizing the simulation to meet faculty and course needs, providing administrative software to evaluate student performance and responding to student inquiries. Technological developments will also improve the campus and distance learning application of interactive multimedia simulations. High-speed access made possible by fiber optics, satellites, wireless communications, two-way broadband technology and high performance modems and search networks will improve Internet connections, interactivity and make full-screen video a reality. Each of these developments will make it easier for students to use simulations and communicate with team members and instructors from any location in the world [Carnevale, 1999].

Network-based management simulations embracing a global perspective will soon be available with digital course materials, bulletin boards, chat rooms and email options included in electronic course resource packages. Using identification passwords students will be able to access Internet-enabled simulations through the web pages of education providers or simulation developers [Lewis, 1997]. In the case multimedia simulations, the video and sound components will be downloaded from the network. Interested faculty can now sample simplified versions of the new web-based simulations that will soon be available. See the web addresses in the reference section of the paper for a listing.

CONCLUSIONS

Seldom does an educator attend a management education conference without hearing about the use of new educational technologies such as multimedia simulation to supplement the traditional approaches to management education. The popularity is not surprising because in most instances the simulations are proving to be an interesting, flexible learning experience for students. They seem to fit the direction of change in management education because they: (1) are consistent with student learning patterns, (2) bridge classroom theory and practice, (3) integrate disciplines and (4) reflect the changing economics of higher education.

The restructuring of management education driven by globalization and an expanding information infrastructure will create a favorable climate for multimedia simulations. Figure 1 highlights the developments expected in the next several years. As these changes evolve, interactive multimedia simulations will be a more important factor in management education.

FIGURE 1

PRESENT STATUS AND FUTURE DEVELOPMENTS IN INTERACTIVE MULTIMEDIA SIMULATIONS

Present Status	**Future Developments**
Nationalistic Simulation Content	Global Simulation Content
Small-Screen Video	Full-Screen Video
CD-based	Web-based
Stand Alone PC Application or Downloaded from a Local Area Network	Downloaded from the Internet
Course Supplement	Part of Electronic Course Package
Primary Use: Marketing and Corporate Strategy	Use Expanded to include Service Management, Finance, Accounting and Entrepreneurship
Administered by Faculty	Administered by Faculty and Simulation Developers

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WEB ADDRESSES

www.esocrates.com
www.interpretive.com
www.hbsp.harvard.edu
www.hps-inc.com
www.mbe-simulations.com
www.montecristo-multi.com
www.riskybusiness.com

CONTINUOUS QUALITY IMPROVEMENT: IMPLICATIONS FOR TECHNOLOGY MEDIATED EDUCATION

[a.k.a.]

TQM, CQI, TME, WBI - and now...

"Smile, You're on Candid Camera!"

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Abstract

Technology Mediated Education and instruction have become commonplace in academe and increasingly are being scrutinized regarding the quality of instruction and the educational outcomes for students. As institutions seek to be cost effective, reach more students, and yet be innovative in their approaches to education, there is the associated need to maintain excellence while meeting the needs of customers. The paper presented here describes a model using Continuous Quality Improvement (CQI) in an educational setting as it relates to the processes, issues, and outcomes of Technology Mediated Education (TME) and Instruction (TMI).

KEYWORDS: Continuous Quality Improvement, Technology Mediated Education and Instruction, Instructional Technology, Total Quality Management

INTRODUCTION

Technology Mediated Education is no longer a new concept in the higher education arena; however, it is one, which remains somewhat enigmatic and unchaperoned. With the increasing demands of cost containment, workforce reduction, dwindling financial reserves and the highly publicized inflationary costs of education, administrators have had to consider alternatives, which would not only be defensible, but facilitate their ability to educate students efficiently and effectively. This is magnified by the competitiveness among institutions for students and the demand of employers for graduates. Distance education, Technology Mediated Instruction, web-based courses, and the myriad of other technology related educational approaches have necessarily become a part of their strategies. Yet, there remain concerns among both administrators and faculty about this approach to education. Is it appropriate for all students and all coursework? Are the outcomes the equivalent of classroom-based instruction? Is the system being abused? Does research support the efficacy of such endeavors? What are the implications for the future? These are only a few of the questions being asked, and they become enormously complicated when the diversity of opinions, potential answers, and vested interests are factored into the discussions. Viewing Technology Mediated Education through a Continuous Quality Improvement model can suggest improvements for the distance education environment.

Reaching students via distance education is commonplace throughout the world, even in many of the more underdeveloped countries. The British Open University, founded in 1969 [Willis, 1994] continues to be one of the world leaders and is the success story that many American institutions attempt to emulate [Blulmenstyk, 1999]. Entire web sites are now devoted to informing potential students of institutions offering courses and providing details on actual course offerings [Wallace, 1999], and universities as well as private companies [Barley, 1999; Neal, 1999] are widely advertising software and courses they have available as non-traditional, off-campus approaches. "Under a plan recently adopted by the UNC [University of North Carolina, USA] Board of Governors, about 3,100 students would plug into their college courses from their home computers during the next decade. An additional 4,000 would attend remote university centers where they could be taught by 'virtual professors' via the Internet" [Stancill, 1999]. With TME, geographically remote students can continue their employment, remain in their own communities, advance their education without having to move to the actual location of the university, and faculty can avoid expensive and time-consuming travel [Rosenkoetter and Howard-Vital, 1999]. Students who do not have flexible schedules and can not attend a course for an entire semester can pursue their education through courses on the Internet [Wallace, 1999]. "In the future, geography is going to matter a lot less" [Cwiklik, 1998] for students, for faculty, *and* for universities. "With the advent of ubiquitous computing, the education industry, which has defined itself historically in terms of buildings and physical colocation, can now be reconceptualized as a virtual enterprise" [Cronin and Crawford, 1998]. The motto of these new "alternative institutions" seems to be "Education – anytime, anywhere, at reasonable rates" [Neal, 1999].

In the future, university professors may have entire courses in the form of multimedia lessons distributed far beyond their own universities to masses of students via the Internet. And, "star power" of faculty could become a new force within university life [Cwiklik, 1998]. Considerable attention needs to be directed toward determining the effectiveness not only of the courses offered, but of the faculty who are teaching them. Critiques of distance education suggest that there has been insufficient scientific research to demonstrate the effectiveness of the approach [Blumenstyk and McCollum 1999]. A number of reports have also focused on the reemergence of "diploma mills" [Guernsey, 1997; Koeppel, 1998], as a result of the lack of control over independent firms and institutions offering both coursework and degree programs. In an article in The Chronicle of Higher Education, Trinkle [1999] suggests that "Courses taken on line have been excoriated as impersonal, superficial, misdirected, even potentially depressing and dehumanizing. A 1999 report on distance education from the National Education Association, for example, says on-line courses may disrupt the student-and-faculty interaction that creates a 'learning community'. Others suggest that there is nothing that people offering distance education courses offer that can not be better acquired on a university or college campus [Letters, 1999]. Regardless of the problems and limitations, through the use of computer technology, students are being reached all over the world. Scientists, practitioners, educators, and executives are sharing their expertise far beyond country boundaries and reaching the global community in a manner and at the depth that was never before possible. Not only is there student learning from a distance, but there is now the opportunity for faculty to do research and share expertise as never before possible.

Technology Mediated Instruction (TMI) is considered by some to facilitate "cooperation among students through collaborative, team-cased projects, and has the ability to connect geographically dispersed students. TMI provides prompt feedback to the learner, and increases the amount and quality of learning activities since the 'classroom' is not limited to formal meeting times" [Academic Senate, 1997]. "The Internet has spawned a new culture with ideas, mores, and modes of communication unique to itself, but it is far from perfect. Only time will tell whether or not the Internet will bring us closer together through communication" [Weiner, 1996]. Yet, distance education is no longer a vision of the future. It is the New Age infrastructure for universal education [Rosenkoetter and Howard-Vital, 1999].

While computer mediated education, including teaching and learning from a distance, has not only been instituted, but endorsed as a contemporary modality within academe, there are numerous concerns about the quality of that education and how it can and will be evaluated. Barley [1999] examines a number of the ramifications of this new approach to learning by educational institutions and further states that "No such institutions currently exist to attest to the quality of instruction or learning via distance education programs." Among others, there are questions concerning the content of courses taught via Web-based education, the background knowledge of students, how knowledge, skills, and degrees acquired via the Web will be compared with those in more traditional education settings, and what the barriers are. A report by the Missouri State Coordinating Board for Higher Education [1996], urged that any telecommunications-based delivery system should "emphasize access, be learner-centered, be faculty-supported, provide high quality instruction, support institutional missions, emphasize educational partnerships, use integrated evaluation and improvement strategies, and use appropriate technologies". The role of accrediting agencies, approval boards, and authorization agencies has yet to be fully determined. The has been clearly evident in the role of the U.S. Department of Education [McMurtrie & Mangan, 1999]

There remain concerns whether new technologies in higher education may now deepen the divide between the "haves and have-nots" [Gladieux and Swail, 1999]. There is also concern about the teaching processes. Students sometimes feel isolated and disconnected [Hill, 1997], lack the self-direction for distance education, or even feel uncomfortable in a television studio-like setting [Rosenkoetter, 1999] In one study, it was noted that it may be possible to place so much emphasis on the remote sites in distance education that students in the home site may feel neglected [Jones and Klopfenstein, 1997]; however, in another study, Teeter [1997] concluded that students in an online introductory education course did equally as well as student in the classroom course on their examinations, and Markel [1999] suggests that "the pedagogy used by an effective classroom instructor of technical communication is already very close to that of the ideal distance educator".

Determining consumer satisfaction and areas where improvements can be made are essential for success [Long, Tricker, Rangecroft, and Gilroy, 1999]. One of the approaches which can be used to address these issues is gleaned from business – namely, from total quality management (TQM), or more recently, Continuous Quality Improvement (CQI). To date, "...the TQM movement has made impressive inroads in higher education administration; however, very little penetration has occurred where it most matters – on the academic side of the institution" [Van Dusen, 1997]. The actual meaning of quality in education, and more specifically in distance education, has serious implications for principles of total quality management [Haughey, 1993-94].

Edward Fiske, from the American Association for Higher Education [1999], suggests that "Accountability in education is increasingly measured by results rather than adherence to rules and regulations." He further indicates that education "...is a vision affirming that what is important is not the amount of information students can master but how they use that information to develop a theory, solve a problem, test hypothesis or otherwise create meaning." Perhaps these principles and ideals are the basis for developing a program for Continuous Quality Improvement within academic institutions. Buchen [1995], in an article on "Continuous Quality Improvement and Adult Education", describes ten major areas of commonality between CQI and adult education. Among these are that both are customer-centered, that adult education involves lifelong learning and CQI is commitment to continuous constant improvement, both involve team building, self-direction, and motivation, and perhaps most applicable in this situation is the importance of relinquishing power. Robert Cornesky and William Lazarus [1995], long known for their scholarly work in total quality management, explain the relationship in considerable detail in their text, Continuous Quality Improvement in the Classroom: A Collaborative Approach. They suggest that in a quality classroom everyone knows the objectives and adopts a philosophy to continuously improve to meet those objectives. Cornesky and others have clearly demonstrated the importance of TQM in higher education [1992] and use of CQI as a tool in effective teaching [1995]. Beginning with the institution's leadership, CQI can have a significant impact on quality education [Freed, 1997]. The importance of CQI in both education and industry is further demonstrated by the many resources [WSU, 1999], organizations and Internet sites devoted to information and assistance on the topic [Wright, 1998].

Sid Sytsma, from Ferris State University [1999] provides a compelling argument for considering and practicing CQI in the classroom to improve quality. In a discussion of the concept of customer in higher education, he suggests that universities have a variety of internal and external customers that need to be considered, but the primary team members are the professor and the student. "We must consider alternatives to many of our current educational practices [including that we need to] examine policies at the university that inhibit a CQI model." Among the attitudes that are necessary to use the CQI model are: having an open mind, being willing to change, to learn new things, to assume the role of learning facilitator, to try new strategies and to assume new roles. A number of universities have successfully implemented CQI as a part of their quest for quality. Penn State [1999a] suggests that CQI begin with the university's strategic plan and consideration be given to the following three hallmarks: a focus on 'clients' (students, faculty, staff, employers, and others), the study of work processes, and information-based decision making [Penn State, 1999b]. The discussion which follows focuses on using the principles and processes of Continuous Quality Improvement to assess, improve, and evaluate the quality of Technology Mediated Education in the collegiate setting, but could be applied equally well to similar programs in business and industry.

THE VISION

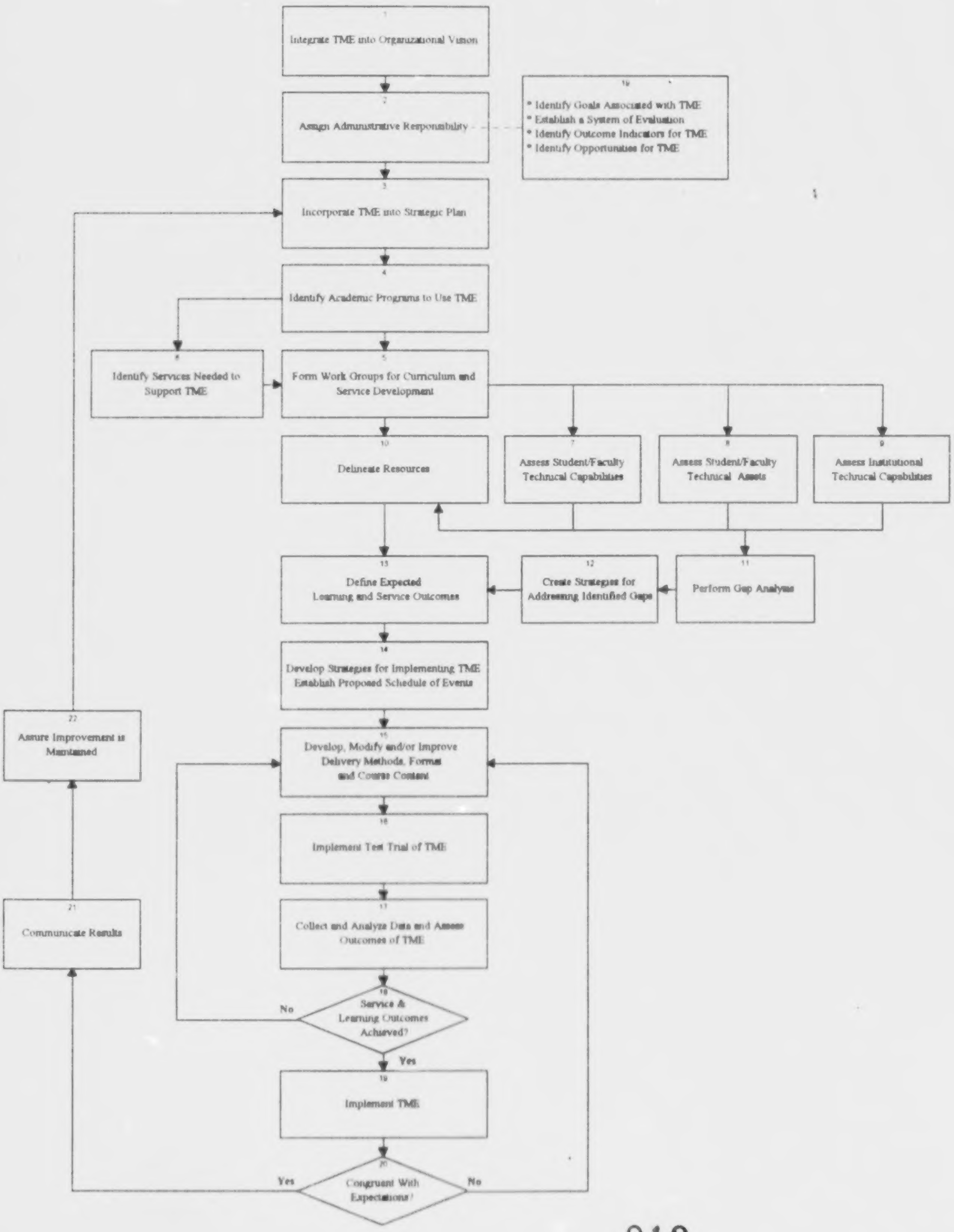
For most institutions of higher education, a vision of TME is inextricably linked to the political, technological, social and economic context of the institution. This vision should be articulated clearly during the planning process. Implementation of TME is linked to assumptions about what instruction ought to be and the role of the teacher in the learning process; thus, TME rarely occurs quickly or without some need for institutional change and innovation. Engaging in international distance education can stimulate institutional interdisciplinary collaborations, scholarly activity, and add to the developing knowledge about national and international distance education. TME is a complex process of constructing, refining and adding to a knowledge base. Quality TME will ultimately be developed as a result of collective knowledge gained from theoretical underpinnings, actual experience and dialogue among educators with diverse perspectives.

THE MODEL

The model outlined in the following was developed from the framework proposed by Cornesky and associates [1992] and adapted from processes suggested by the Joint Commission on Accreditation of Healthcare Organizations [1991] and widely used in hospitals and other healthcare organizations throughout the United States. The model has been expanded to focus on Continuous Quality Improvement (CQI) in an educational setting as it relates to the processes, issues, and outcomes of Technology Mediated Education (TME) and Instruction (TMI) (See Figure 1).

FIGURE 1
A MODEL FOR INTEGRATING CQI AND TME

A Model for Integrating CQI and TME


1
Integrate TME into Organizational Vision
2
Assign Administrative Responsibility
16
* Identify Goals Associated with TME
* Establish a System of Evaluation
* Identify Outcome Indicators for TME
* Identify Opportunities for TME
3
Incorporate TME into Strategic Plan
4
Identify Academic Programs to Use TME
6
Identify Services Needed to Support TME
5
Form Work Groups for Curriculum and Service Development
10
Delineate Resources
7
Assess Student/Faculty Technical Capabilities
8
Assess Student/Faculty Technical Assets
9
Assess Institutional Technical Capabilities
13
Define Expected Learning and Service Outcomes
12
Create Strategies for Addressing Identified Gaps
11
Perform Gap Analysis
14
Develop Strategies for Implementing TME Establish Proposed Schedule of Events
22
Assure Improvement is Maintained
15
Develop, Modify and/or Improve Delivery Methods, Formats and Course Content
16
Implement Test Trial of TME
21
Communicate Results
17
Collect and Analyze Data and Assess Outcomes of TME
18
Service & Learning Outcomes Achieved?
No
Yes
19
Implement TME
20
Congruent With Expectations?
Yes
No

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ASSIGN ADMINISTRATIVE RESPONSIBILITY

The administration of the university, beginning with the chief executive officer and governing board, oversees and encourages the continuously improving quality of all aspects of the academic institution, including all aspects of Technology Mediated Education. Their commitment both to Continuous Quality Improvement *and* to technological mediated education is critical for not only the implementation of each, but for the successful realization of programs within the academic setting. With this as a starting point, faculty, staff, and students can ultimately receive the requisite support for academic pursuits and scholarly achievements.

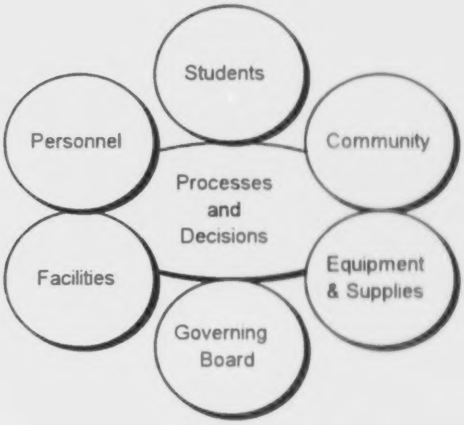
Administrators are responsible for identifying potential opportunities for TME, given financial and related constraints, and in consultation with faculty, identifying the overall goals to be achieved. From this beginning they can ultimately establish the system of evaluation which will support or reject goal attainment. Having clearly stated outcome indicators from the outset is essential in determining whether the program has indeed been successful and the objectives have been reached.

Establish a System of Evaluation

The development of a comprehensive evaluation plan (See Figure 2) is critical to the success of the program in that evaluation results become the impetus for change and provide the documentation needed for making those changes. Systematic, summative and formative evaluations are needed for the TME program, for faculty, students, and staff, as well as for the implementation process, the equipment and supplies, for courses and programs offered, and of course, for the facilities. Special consideration is required for the coordination of the many TME activities in order to facilitate their effective implementation.

FIGURE 2

Evaluation Components



Technology Mediated Education reaches out to a variety of different customers. There are the students, the faculty, the representatives of off-campus programs, the community, eventual employers, and even the parents of the students. Evaluation is further complicated when the TME program includes an international market. Education in the United States varies formidably from education in many other countries. This was evident in the Digital Communities Experiment between the University of North Carolina at Wilmington and Japan [Howard-Vital and Rosenkoetter, 1999] when it was noted that Japanese students felt more pressure during class, needed interpreters, and found that the course content could sometimes be overly heavy compared to what they were accustomed. Such issues need to be addressed when establishing TME programs in the international arena.

A comprehensive system of evaluation is an on-going process, not only to provide for maintenance of the program, but to identify and prevent future problems. Community involvement is essential if programs are to meet community needs and if there is to be adequate support for Technology Mediated Education. All of this assumes planning, and planning is indeed the precursor to success.

Throughout the development, implementation, evaluation, and ultimate modification of any program of Technology Mediated Education, attention needs to be given to decision-making – both in terms of who is making the decisions, and the consequences of those decisions for the entire program and all of its elements. Understanding and delimiting these organizational processes are necessary in order to facilitate the necessary changes.

Identify Outcome Indicators

Through outcome indicators, the administrative team, the faculty, the staff, and the students have standards against which they can compare the results of the program. Examples include the satisfaction level of students, course grades, standardized test results, employment statistics, community responses, approval ratings of faculty and staff, and in the case of international education, the approval ratings of officials in the foreign country. Additional indicators compare the outcomes of TME with the more traditional methods of education. These indicators will vary not only with the educational institution and its goals, but with the programs, the technology, the locations, and the people involved.

INCORPORATE TECHNOLOGY MEDIATED EDUCATION INTO THE STRATEGIC PLAN OF THE INSTITUTION

The mission and strategic plan of the institution should clearly identify that TME is an integral part of the direction and services of the university, and that the administration, faculty, staff, and the students are committed to providing this service. Continuous assessment, along with a commitment to continuous improvement, will insure a foundation for the ultimate success of the TME program. Continuous Quality Improvement, as it relates to Technology Mediated Education, must be an integral part of the organization's value system, educational climate and culture.

IDENTIFY ACADEMIC PROGRAMS TO USE TME

Success of the TME program depends not only on those things discussed previously, but also on the academic programs and courses that are included. Needless to say, not all faculty want to participate in TME or TMI and not all courses may be appropriate for this type of instruction (at least not as they are currently structured). Selection of these "appropriate" programs and courses can be extraordinarily complex. For example: What are the student and "community" needs? Who will take the courses and for what purpose? Who will teach the courses and what are their skills? Which courses can be taught in this manner? When can they reasonably be offered? What facilities are available and which new ones are needed? What equipment is available? What additional support services and personnel are needed? The answers for these sometimes difficult questions emanate from a thorough assessment of needs and a well constructed plan for implementation.

ESTABLISH WORK GROUPS FOR CURRICULUM AND SERVICE DEVELOPMENT

Using a team approach can facilitate the interactions of administrators, faculty, and support service personnel throughout the decision-making process. Each member of the team brings a different perspective to the TME development process. Administrators bring knowledge of the resources available to support this mode of instruction while faculty bring not only a knowledge of the content but the pedagogy associated with delivering the instructional "product". Because TME is a relatively new approach to instruction in many universities, faculty benefit from the cross-fertilization of ideas and experiences during the development process. Interactions between faculty enhance the process. The involvement of technical support and logistical staff at the beginning of the development process enhances the final product and insures that all of the many components fit together at the point of delivery.

Involve Faculty

Faculty are crucial intrapreneurs in designing TME. TME represents a change from the traditional faculty-student roles, as well as the need for many faculty and students to learn new approaches to teaching and learning. Faculty involvement is key to the success of the program. While some institutions have mandated faculty involvement in distance education programs, these programs are generally more successful when they are endorsed by the academic community. Faculty need to be involved in decision-making throughout the development, implementation, evaluation, and modification of the program. The participation of faculty and attention to their queries form the underpinnings for thorough discussions and institutional change. Institutions reflecting on TME should ask and answer the many questions concerning the roles and responsibilities of faculty as a part of the planning process and prior to any actual implementation of TME.

Delineate the Proposed Services

When the commitment is made to TME, perhaps the most basic consideration is regarding the technological services to be provided. With the explosion of technology in education, there are an enormous number of possibilities, and few institutions can afford to commit to all that is available. Carefully selecting options that meet expectations, and are reasonable (given the constraints of monetary resources, physical facilities, personnel resources, and the like) is essential for later success. Decisions will be needed on whether there will be two-way synchronous audiovisual courses, Web-based courses, asynchronous courses, chat rooms, e-mail for faculty and students, etc. These decisions become even more complex when considering international markets and the availability of resources at distance sites.

Policy and procedural changes may be required in order to provide the services that are being proposed. For instance, university "rules" and "structures" are generally not designed for online students. Student services need to be available online, including admissions, registration, and bookstore access. Faculty concerns over workload and acquiring new skills need to be addressed. Administrative procedures may need to be changed to accommodate student and faculty needs. Students need access to library resources from computers that are not on campus, and many of the TME students will need to be trained to use computers on the Internet. Not all students own their own computers, and many others lack adequate access to computers, computer software, and the Internet to be able to enroll successfully in TME courses. This is compounded when two or more languages are involved and students are communicating across geographical distances.

Before decisions on services can be made, faculty need to understand that teaching by distance education will require a greater proportion of their time, that they will probably need to learn new teaching techniques and certainly new technologies, and that there will be new challenges associated with not having direct contact with students. There will be the need for support staff, new equipment and software, perhaps new facilities, off-campus coordinators and resources, administrators to oversee the process and make appropriate decisions. Deciding on services is not only complex but is ever changing due to the evolving nature of the technology, and the expanding expectations and needs of both students and faculty. By the time decisions on proposed services are made, new technologies demand new decisions.

Delineate the Geographical Scope of the TME Program

With TME, it cannot be overstated that the geographical remoteness of students requires more diverse modes of instruction than does traditional teaching. In terms of customer service and the faculty's role in guiding the student's learning process, the establishment of indicators for continuous quality is essential. Students who are a substantial distance from the professor will need to rely on technology for interactive communication, assignments and discussions. While some of these students could be as close as across campus, others could be in another country with different software, different resources, and accustomed to a different language. Thus, TME needs to be constructed so that it can clearly convey expected outcomes, furnish opportunities for feedback between faculty and students and measure the student's ability to perform and understand the content or skill.

As indicated earlier, not everyone appreciates or endorses Technology Mediated Instruction. Noel and Henson [1998] state that international TMI might be viewed as threatening for numerous reasons including the view that it is basically one-sided and technological advancements are being given away, possibly giving away our (US's) competitive edge. Noel and Henson offer, however, that the boundaries between domestic and international TMI are becoming increasingly blurred. Both are intrinsically influenced by accessing, analyzing and implementing global information and technology. Some faculty and administrators will recognize this as an opportunity for the university to explore distance learning on an international scale; others will affirm concerns about quality, costs, feasibility, language difficulties, and the mission of the university. Discussions on whether to provide local, national and/or international distance education are necessary for long range planning and development.

Compounding the many problems are the issues grounded in international law and governmental restrictions. What if, for example, the required textbook for the course is banned in certain countries and students from one of those countries enrolls in the course? Students frequently buy their textbooks over the Internet at lower cost than through traditional university sources. Recently, Amazon.com was accused of selling banned books in Germany and blocked sales of another subject to a cease-and-desist order in the United Kingdom [Wolverton, 1999]. It is virtually impossible for online retailers to remain current on such restrictions and for faculty to predetermine where courses might have legal restrictions; however, this is not only a sensitive and litigious issues, it is certainly a sociopolitical one which will demand increasing attention.

DELINEATE REQUIRED RESOURCES

The three major resources to be considered include personnel, equipment and supplies, and facilities. Personnel (on campus and at remote sites) are needed for the administrative functions and to guide decision-making, staff and operate the facilities, teach the courses, and coordinate on-campus as well as off-campus activities of the Technology Mediated Education programs. Facilities, equipment, and supplies will be needed to implement the services which have been previously agreed upon.

Resources should be continually reevaluated to determine new needs, or shortfalls in existing allocations, as well as additional resources needed for special circumstances. This reevaluation is obviously linked to budgetary as well as facility considerations. Input -at all levels -is required in order to recognize needs, avoid problems, and arrive at reasonable solutions. Giving careful consideration in advance to the vast array and complexity of the resources needed will alleviate many problems, which can arise from insufficient and ineffective planning. And *everyone* needs to understand that technological advancements are going to move faster than an institution's ability to afford or implement new capabilities!

Faculty and student resources, as well as institutional technical capabilities need to be assessed to determine the feasibility of implementing a TME program, to identify additional resource needs, and to serve as the basis for justifying funding requests. There are a number of widely recognized technologies that faculty may find useful when creating reasonable TMI learning environments. For online courses, for example, faculty at UNCW [Howard-Vital and Rosenkoetter, 1999] have found the following especially valuable.

E-mail for faculty/student communication
Course development tools
    Course databases for course materials
    Discussion forums for classroom discussions
    Resource library for online web resources
Software for video clips of the faculty
Software for virtual office hours
Assessment tools for online quizzes and examinations

For students, there are similar items. In order for TMI to be successful, students need to know how to navigate the Web, download files from the Web, search the Web, and perform browser configuration. In order to participate in most courses, students need an e-mail account, access to the Internet with a modem at an acceptable speed, a microcomputer capable of running a university acceptable browser, and course compatible communications software. Online students should be expected to participate in asynchronous electronic discussions using a web-based software tool for discussion and collaborative work. Some courses, such as mathematics and music, may have their own specialized software as well.

One of the major problems is that not all students initially have these capabilities, or have access to the types and levels of computer-based communication systems that are required. For those who do not, resources must be identified and acquired - which can be complicated, frustrating, and expensive. Students need to be prepared to incur additional educational expenses as well as be independently motivated to seek resources on their own.

Most faculty and students need access to technical support staff and resource personnel who can teach about the required hardware and software, assist with problems, locate resources, and be available in times of crisis. For students who are at remote sites, they will need access to resources on the main campus, and they may also need access to resources in their own communities. The university can prepare in advance by locating at least some of these resources and making them known to students.

When developing an international program, there are special considerations, including the differences (and sometimes incompatibilities) in computers, computer programs and servers. Language translators may be needed both on the main campus and at distance sites. This includes people who are culturally sensitive and knowledgeable about the educational, political, and social systems, and the customs and practices of both countries.

Perhaps the most complex issue involved in delineating required resources is that of technological obsolescence. Computer hardware, computer software, and communication technology are evolving so rapidly that most institutions can not possibly have the latest of all that is available. As a part of CQI, attention must be given to determining what and when to replace elements of the system, for what purpose and for what cost. This implies returning once again to the mission of the university and the overall CQI process.

DEFINE EXPECTED LEARNING AND SERVICE OUTCOMES

Gaps between actual and required technical abilities must be addressed and eliminated if TME is to be successful. An in-depth analysis may uncover multiple shortfalls, which may require the infusion of significant personnel and financial resources. If resource requirements exceed an organization's capabilities to deliver training, equipment or support services, then a new examination of the TME vision may be required. Manageable shortfalls must be addressed through appropriate strategies. Until these strategies are implemented and identified gaps are reduced, TME can not be expected to reach its full potential.

Expected learning and service outcome measures and associated evaluation methods must be identified to fully assess the effectiveness of the TME approach. Traditional evaluation methods do not always assess the value added by the use of technology. Organizational expectations along with those of the instructor, the student and the technical service providers must be identified before performance measures are defined and assessment methods are adopted.

DEVELOP STRATEGIES FOR IMPLEMENTING TECHNOLOGY MEDIATED EDUCATION

Strategy development requires involvement by the whole implementation team. The knowledge gained through earlier analysis serves as the foundation upon which TME must build. Vision, organizational capabilities, instructor abilities, resource requirements, and learner needs are some of the structural components that play an integral part in the formation of appropriate strategies. Once strategies are developed and documented, assignments can be made to various components of the implementation team.

ESTABLISH PROPOSED SCHEDULE OF EVENTS/ACTIVITIES

The development of a TME schedule of events is an often underestimated, yet indispensable part of the CQI process. This needs to involve the administrative team with meaningful input from all levels regarding realistic expectations - understanding that schedules are rarely completed on time and that there will be numerous obstacles to overcome and issues to resolve. Nevertheless, mapping out a plan with actual dates for each stage of implementation, evaluation, and revision will provide each team member not only with an implementation timetable, but provide each with a better understanding of what needs to be completed. As dates need to be changed, gathering input from the team helps to simplify the process and promote understanding among all parties involved. A variety of software for PERT charts, pareto charts, and mapping programs are available for this purpose.

DEVELOP, MODIFY AND/OR IMPROVE METHODS, FORMAT AND COURSES

As a result of prior planning and subsequent assessment, there may be a need to create, modify or even improve existing approaches to education and learning, the processes used in teaching, and the actual course content. This is primarily the role of the faculty with support from administration, the latter of which will need to provide the approved equipment, supplies and resources; and the facilities to embark on the program. Faculty will quickly learn that creating Web-based courses, two-way synchronous courses, chat rooms, web sites, etc. will consume more time than originally anticipated and require additional expertise. Once programs are established, revisions will be necessary to improve course offerings and correct problems found through continuing evaluation.

Not only is it important to continually reevaluate resources and facilities, but it is equally important to reevaluate the services which are being provided. Technology is changing so rapidly that it is nearly impossible to remain current on the latest innovations, much less acquire the most recent technologies and utilize them within the educational setting. Setting priorities, evaluating services and planning for new ones is an on-going process. It is highly probable that some services may need to be discontinued, or at the least modified considerably if they are to be effective. For instance, one site may have insufficient resources or experiencing too many technical problems to make its continued use feasible; too many students may have withdrawn from a course to make it cost effective; a faculty member may have resigned; or an outreach coordinator may have taken a different job. There are a variety of reasons to reevaluate services, but unless this is constantly done, programs can continue without sufficient support and without the level of quality that is deemed essential.

IMPLEMENT TEST TRIAL OF TME

By selecting one program or even a single course, faculty and students are given the opportunity to evaluate the new delivery concepts, processes, equipment, and facilities. Faculty must have the opportunity to test their course and determine what changes need to be made – AND whether they want to teach by TME. Students have the opportunity to determine if this learning strategy is appropriate for them. Facilities and equipment must be tested to determine if everything is working properly. This is a time to "work out the bugs" that were not previously identified and correct each before the entire TME program is jeopardized by a major disaster. Just remember, disasters will happen. Technicians get sick. Computers crash. Communication equipment breaks down. And the electrical power will fail - during class!

COLLECT AND ANALYZE DATA – AND ASSESS THE OUTCOMES OF TME

Data for both summative and formative evaluations comes from a myriad of sources. This is due to the nature of TME, the sizeable number of personnel involved, the complexity of the equipment and processes, the enormous differences among customers, and the desired outcomes of the program. While statistical data is essential, there is also great value in doing qualitative research to ascertain the satisfaction of everyone involved, as well as enumerate any problems that were encountered. After all, faculty may be satisfied when students are not, and students may be satisfied when faculty are not. Discussions may elicit more accurate information than impersonal check-list evaluations.

Site visits by an evaluation team are an important aspect of the data collection process, particularly for international education and new geographically remote sites. Program participants are frequently more willing to discuss issues in person rather than reporting them in writing or as statistical data. These visits can provide an opportunity to bridge cultural differences and overcome barriers that prevent a critical discussion of program performance. The basis for all program revisions must follow a thorough analysis of all performance data. In order to insure that the CQI model is not compromised, the analysis and subsequent revisions should be done by all members of the implementation team.

DETERMINE IF SERVICE AND LEARNING OUTCOMES HAVE BEEN ACHIEVED

Each individual involved in the technology program needs to be contacted and asked for an evaluation and comments. The type of evaluative information sought will be dependent on the roles and functions of the evaluator. For example, faculty will be keenly interested in evaluating the teaching/learning process, the technology, and the administrative processes. Administrators will most likely be interested in the cost-effectiveness of the program, the satisfaction of customers, and the adequacy and effectiveness of the technology. The environment for conducting these evaluations must be conducive to the free flow of ideas and allow for both critical and constructive criticism. The result should be the basis for improvement to this TME project and the willingness to move on to other teaching and learning opportunities. In situations where a multi-cultural environment is involved, site visits involving personal contact with administrators, faculty and students may be the most productive approach. If, when compared to the goals and outcome indicators, learning outcomes have not been achieved, the process begins again - from the beginning.

IMPLEMENT TME PROGRAM

According to Cornesky (1992), there are five conditions for implementing Total Quality Management or Continuous Quality Improvement in an educational institution: 1) education and administrative commitment; 2) education and commitment of faculty and staff; 3) establish trust; 4) establish pride in workmanship; and 5) change the institutional culture. This applies equally well when implementing TME within the context of Continuous Quality Improvement. Implementation, however, means not only beginning the program, but finding out everything that is going wrong!

DETERMINE IF OUTCOMES ARE CONGRUENT WITH EXPECTATIONS

Using the Outcome Indicators, findings of the evaluative process are compared with expected outcomes to determine whether the program has been successful, whether expectations were inaccurate or unrealistic, and whether new expectations need to be developed. This is a time to decide upon the changes which are needed and to begin the entire process all over for those elements or processes which have been found to be problematic.

COMMUNICATE RESULTS TO AFFECTED INDIVIDUAL AND GROUPS

Communication of the results of the program is imperative if there is to be support from the administration, the faculty, the students, the staff, and even the community. Given the economic constraints facing higher education today, educators and educational administrators are accountable for not only the programs they implement but the success of those programs. Conveying success to customers, providers and stakeholders can assist the institution as it seeks to develop a broad-based support system for the implementation and use of Technology Mediated Education.

ASSURE IMPROVEMENT IS MAINTAINED

Through constant reevaluation, it is the responsibility of personnel - at all levels - to assure that the improvements which were identified are continued. Because TME can be extraordinarily complex, and because the changes can be dramatic, it is inevitable that there will be resistance to change at some points during implementation. Assuring that improvement continues assumes a process of continual evaluation and the monitoring of each facet of the program, the personnel, the processes, the facilities, and especially the equipment. When problems are found, identifying the causes and taking corrective action must be a fundamental part of the overall process.

Take Actions To Improve Services

There is little need to have an elaborate system for evaluation without taking action to make changes which resulted from the information and statistical data that was acquired. Taking action includes involving personnel at appropriate levels and returning to the strategic plan if necessary. By involving people who can make the changes, and having administrative support for those changes, there is a greater likelihood that improvement will actually happen and that the future success of the program will be assured.

Assess The Effectiveness Of Actions Taken

Once the changes have been made, the next step is to determine whether the actions, which were taken actually improved the system and resolved the problems or issues. Too often, changes are implemented without regard to the consequence of those actions and whether they have sufficiently reconciled the issues and improved the overall TME program. Not all actions will prove to be effective and subsequent changes may be needed to redirect personnel or solve new problems.

Implement Evaluation Follow-Up

Once the data has been collected, it is especially important to return to the various sources to further clarify and validate information that has been gathered. Clarification is now sought to resolve misunderstandings as well as supplement initial data analysis findings. This provides an excellent opportunity to discuss the future potential of the program and suggest changes that are needed in the program and more importantly in the evaluation system.

FUTURE PROGRESS

There is much that still needs to "happen" in TME. Faculty need to determine how to allow students to work at their own pace without causing overload for the instructor while still meeting the course objectives. Mechanisms are needed to identify papers plagiarized from the Internet, such as the one being developed through plagiarism.org. Technical support staff need to determine how to authenticate that the "users" taking the course are the "students" who actually registered. This is a nearly impossible task. Passwords can be shared; one person can "sign on" and another do the work; retinal scans are not currently economically feasible; and this is not a new problem. It's been around for centuries. It's called cheating! But now faculty must be more creative in their approaches to prevent and detect any attempts or infractions. *And*, students must be educated regarding any potential infractions and held accountable for their actions when violations occur.

More basic to this particular issue is the need to verify who the users are who want to enter the system. "Facing a growing need to verify the identities of students and employees for on-line transactions, a handful of universities have begun issuing high-tech "digital certificates" that are nearly impossible for hackers to tamper with. [Olsen, 1999]. The technology in this area is predicted to grow phenomenally in the next few years.

Another controversial issue needing resolution is "Who owns the courses?" There is growing debate over the rights of faculty and universities to control courses which are created for Web-based instruction. "Because of the rapid growth of Web-based distance-education programs, those rights are becoming a hot issue, and institutions have been working to spell out who owns and controls the materials that appear on line. Some universities are sharing the spoils of ownership with faculty members -as an incentive for them to create on-line courses-while others are not. And some officials are beginning to look to other fields, such as the movie and recording industries, for ideas [Carnevale &Young, 1999]. Faculty members of the future may indeed have their own agents!

There needs to be a full accounting for the expenditures as well as for the direction that Technology Mediated Education is taking students, faculty, and higher education in general. Cultural barriers need further investigation. Research continues to be needed to document that learning is equal to or even enhanced by this approach to education and that students are truly receiving a quality education. There is little question that Technology Mediated Education is here to stay, but when used, assurances are needed that it is an effective, efficient and creditable approach to educating students and achieving one of the primary missions of the university -a quality education.

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DISTANCE EDUCATION ON-LINE COURSES IN BUSINESS SCHOOLS

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Abstract

Distance education has increased exponentially in business schools over the past decade and will continue into the next millennium. Distance education is not a new concept, it has been utilized for 150 years from correspondence to radio to television and now via the computer. What are the advantages and disadvantages of using this new media, on-line distance education? Are students receiving a quality education, or are the schools using on-line distance education to be more cost effective?

This study will investigate the reasons why business schools engage in on-line distance education. The challenge will remain that business schools need to prepare their graduates for a competitive global marketplace. The faculty need to be innovative and creative in their lesson plans to ensure a steady flow in the distance education courses. Administrators must understand that cost savings will come in the future as the technologies and the student enrollment increase.

This challenge must be addressed and appropriate educational strategies must be implemented to ensure that students are properly prepared. The brave new world of on-line distance education is now a reality. Are we ready for the changes?

INTRODUCTION

Distance education has been with us for a long time, over 150 years, however with the advent of the Internet; we are seeing a renewed growth of distance education in higher education. Many educators and researchers have defined distance education over the years (Holmberg, 1986; Keegan, 1986; Verduin and Clark, 1991), many define distance education when the instructor and the student are separated by distance a medium or media of communication are employed and an educational institution. This definition may be appropriate as a beginning, however for this study, I would like to further refine the definition of distance education in terms of the communication media, the Internet. Therefore, distance education will be defined as the student who is separated from the instructor by distance and all communication is done through the Internet. The literature, though relatively modest, has reported on this new media in higher education. What are the reasons why a university would begin an Internet course on their campus? What are the advantages of doing this and how will it affect the students, the faculty members and the administrators?

DISTANCE EDUCATION

The reasons a business school will start an on-line program are numerous. This study will examine some of those reasons, which include the following: cost savings, higher student enrollments, pedagogic effectiveness, accessibility for students, flexibility and independence for students and faculty, more diversity of student in courses, and a wider selection of faculty to teach the courses.

The first reason for the introduction of on-line course on-campus and off-campus is cost savings. One faculty member can lecture to 150-200 students depending on the availability of facilities. On the other hand, one faculty member can record his lecture and this lecture can be repeated on-line virtually thousands of times per semester. Notwithstanding the timeliness of that lecture on the Internet, the university can offer this on-line course every semester, thus increasing the gross profit per course.

Another reason why universities are exploring the on-line courses is higher student enrollments. As previously mentioned, one faculty member can reach thousands of students per semester in an on-line course every semester. This outreach to students that do not have access to the university campus is an added bonus to many schools, many of which have had a traditionally small student population to draw from in the past.

Pedagogic effectiveness is another motivation for business schools to offer on-line courses. Interactive distance learning requires that the students function independently and feel comfortable in a computer-based environment. At Tulane University, the goal is to achieve a balance between the interactivity built into the programs, independent study, and individual time schedules. In some cases, students say distance learning is more difficult than learning in a traditional classroom, often because they must exercise a greater degree of motivation and because they must learn and incorporate computer skills and the ability to troubleshoot as they absorb the material presented. However, students also indicate they have been able to integrate these skills into other aspects of their work, and that the overall learning environment is comparable to their on-campus experiences (Murphree, 1999). Evaluation of on-line courses and the on-line programs shows that students who have attended the same class on-campus and at distance locations have identical outcome performance measures. In addition, student satisfaction with the classes and instructor is compatible. Ongoing evaluation provides feedback for continuous presentation and learning material improvement (Murphree, 1999). Professor Greg Kearsley (1998), a professor at University of Phoenix, states students who take on-line courses "typically find that they are drawn into the subject matter of the class more deeply than in a traditional course because of the discussions they get involved in." This may be due to the instructor not monopolizing the attention in an on-line environment. Anyone who loves to pontificate to a captured audience will find that students will log off in an on-line environment if they are bore and/or cannot communicate openly. Kearsley suggests that distance education minimize the prejudice that often arises in face-to-face settings. Unless someone deliberately reveals personal information, participants have no idea about the age, gender, ethnic background, or physical characteristics of others on line. The discussions that ensue are about as free of socio-cultural bias as possible. Distance education can be more stimulating, and encourage more critical reasoning, than the traditional large lecture class, because it allows the kind of interaction that takes place most fully in small-group settings.

There have been several studies (McCormack, Jones, 1998; Schutte, 1998) suggesting that distance education is more successful than the large survey courses at many public colleges and universities. At California State University at Northridge, Professor Gerald G. Schutte (1998) reports that he randomly divided students in a social statistics course into two groups, one taught in a traditional classroom and the other entirely on-line. Test scores on both the midterm and the final examinations were an average of 20 percent higher for those in the on-line course. Schutte also notes that students in distance education courses say they have more peer contact with others in class, spend more time on class work, understand the material better and enjoy the course more.

Accessibility of students to on-line courses and programs is another consideration for business schools. The University of Phoenix now enrolls more than 56,000 students each year, with 7,000 students taking their courses exclusively on-line. According to a report by the Pew Higher Education Roundtable (1999), by 2000 non-traditional students will make up at least 60 percent of all college students. For these non-traditional students distance learning will provide more flexibility in terms of when, where, and how many courses to take. Increased competition among educational institutions offering such courses will probably also reduce the costs that non-traditional students will face (Trickle, 1999). Within the next five years, it is hoped that 15 percent of all California State classes will be offered over the Internet. On-line course offerings are one of the principal strategies for the 22-campus system to accommodate the tidal wave of additional students that threatens to overwhelm the traditional classroom environment (Weiss, 1999).

STUDENTS AND DISTANCE EDUCATION

Students taking on-line courses state that flexibility and independence are important criteria for choosing on-line programs, therefore business schools should consider them as important. Internet has made interaction between school and students virtually instantaneous and global. Even conventional schools are building Internet components where students, instructors, and administrators exchange lessons and assignments on-line, through email, and on television. For students this means a diploma within a personal schedule (Joellenbeck, 1999). This integrated approach has produced a powerful interactive teaching system that has proven to be functional and effective. The demand for education in business management and technology is overwhelming, and many business schools are committed to responding to this need. While on-campus learning is the foundation of the educational mission at all universities, delivery of courses and degree programs to individuals who cannot participate in traditional on-campus classes has become essential in the field (Murphree, 1999). Students represent a wide variety of professional environments and a wide variety of technological skills. The on-line format allows for a great deal of interaction between the students and a sharing of experience that further enhances the educational benefits (Murphree, 1999).

The goal of the on-line program is to build enough flexibility into the curriculum to allow students from diverse backgrounds to pursue their individual interests and needs and to meet or exceed all appropriate accrediting standards. "Our curriculum combines both the theoretical and applied aspects of the field. The current curriculum allows for current 'hot topics' to be included at the discretion of the faculty and students. Student input is encouraged in order to keep the curriculum current and relevant" (Murphree, 1999).

When a course is given on-line there is no way the instructor knows the characteristics of the students, unless the student provides that information. As discussed earlier, Kearsley (1998) suggested that distance education is the perfect environment to stimulate and encourage more critical reasoning, as there are little or no prejudices and/or socio-cultural bias present. In the case of an on-line course, there is no face-to-face interaction, so the student-to-student and the student-to-faculty interactions are similar to small group interactions, rather than the traditional large lecture classes.

Distance education allows the university to reach beyond on-campus faculty and recruit specialized professionals from other parts of the country. This assists in expanding the knowledge base of the university, thus giving the student a more "complete" degree. Many business schools gauge themselves by the caliber of their faculty: who is a noble laureate, who has received the largest grants and who has published the most prestigious books in the field. Therefore, the universities that can acquire the services of these "world class" faculty members, even if those services are on-line through the university's website, should have a competitive edge over their competing universities. Ten years from now, talented university professors may develop whole courses in the form of multimedia lessons distributed well beyond their host universities to masses of students over the Internet (Cwiklik, 1998). Professors would gain stardom from their on-line courses and their multimedia texts. As the educational Internet gains acceptability, the private sector may begin to provide state-of-the-art technology to students causing many universities to rethink the traditional campus model. As many campuses change to the on-line courses, so will the libraries move from traditional texts, journals, and books to on-line stacks. The American Assembly of Collegiate Schools of Business (AACSB), the national accreditation body for business schools, has recognized that electronic libraries are more efficient and more productive for students' research on and off the campus.

The number of schools that are using this form of on-line distance education are small, but the number of schools that are researching this new distance education form are growing, as reported in the Chronicle of Higher Education. Everyday, the Chronicle reports on more schools that are examining the distance education form of teaching and learning. In fact, the Chronicle has an entire section of their publication devoted to in depth discussions, research and evaluation of distance education courses and programs. Many of these schools are learning by trial-and-error, while others are learning from their competition, but for the most part all the interested schools are proceeding toward on-line distance education in some manner.

THE STUDY

In this study, I will examine the following business schools: Pennsylvania State University, Rensselaer Polytechnic Institute, University of Phoenix, and the Henley Management College (UK). Each one of these schools has courses that are taught on-line, the difference lies in how the courses are presented on the Internet, what teaching methodologies faculty are using, and the effectiveness of students participating in the on-line courses.

The data has been gathered through personal interviews and questionnaires with students, faculty and administrators at the above mentioned universities to determine the effectiveness of the on-line courses as compared with the university's original goals and objectives for on-line courses and programs.

The interviews and the questionnaires have been analyzed using Chi-square analysis, multiple regression analysis, and correlation analysis the results are critically compared against the prevailing literature. The goals of this study are to determine the effectiveness of the on-line courses for the students as an educational tool; for the faculty as an effective teaching tool, and for the administration as an effective tool in attracting traditional and non-traditional students to the university programs.

THE SUBJECTS

Originally, the study would investigate four universities: Pennsylvania State University in State College, Pennsylvania, Rensselaer Polytechnic Institute in Troy, New York, University of Phoenix, Arizona, and the Henley Management College, Centre for Technology in Henley-on-the-Thames, England. Due to some logistical issues with off-campus students at three of the universities, it was decided to focus on one university, Rensselaer Polytechnic Institute.

The sample will include three groups of working graduate business students who are enrolled in the traditional on-campus program and in the distance education program at Rensselaer Polytechnic Institute. Samples will be selected from students who are employed full-time and enrolled in the traditional on-campus program and in the distance education programs both on-campus and off-campus. The three student samples will be drawn from students, who are in the first half of completion of the traditional on-campus program and the distance education program. A total sample size of 300 individuals will be obtained with 100 individuals per group. The total sample will consist of working graduate business students enrolled in the traditional on-campus program and in the distance education programs.

Additionally, ten faculty and ten administrators were surveyed and/or interviewed to complete the study. Although a sample size of ten is not statistically significant the information gathered can be used to make some decisions regarding the utilization of on-line distance education resources.

THE RESULTS

The instrument used to determine the students' readiness to learn in an on-line distance education environment was the Self-Directed Learning Readiness Scale (Guglielmino, 1977). Likewise, faculty members were surveyed using the Self-Directed Learning Readiness Scale for each student participating in their course and a questionnaire to determine the effectiveness of the on-line distance education from an andragogical approach. The administrators were surveyed using a questionnaire to determine the cost effectiveness and what the effects were on student enrollment in an on-line distance education environment.

The differences in means of the various student groups as compared to the population mean of the original sample by Guglielmino in 1977 was as follows: Guglielmino population mean equaled 120; the mean of the on-campus traditional graduate business students employed full-time equaled 126; the mean of the on-campus distance education graduate business students employed full-time equaled 128; and the mean of the off-campus distance education graduate business student employed full-time equaled 131. Therefore, the graduate business students who are employed full-time and enrolled in a distance education program off-campus will score higher on the Self Directed Learning Readiness Scale than graduate business students who are employed full-time and enrolled in distance education programs on-campus and graduate business students who are employed full-time enrolled in a traditional on-campus program.

Additionally, there was a correlation among various factors: age, gender, family status, number of years of working experience, income range and job travel. The correlations were positive were comparing these factors. In general, when the category increased there was a positive correlation. For example, the higher SDLR scores were scored by older students, who were married with children, with over ten years work experience, who travel at least twice per week and who earned between $80-100,000 per year income range.

The student groups were all graduate business students who were employed full-time, so they were under time pressures when completing the survey and the questionnaires. Students scored flexibility and accessibility as the two highest attributes of the on-line distance education program. There is a positive correlation between the number of hours worked per week and the student enrollments in on-line distance education programs throughout the country (Guglielmino and Long, 1987; Schor, 1991).

In general, the faculty scored the off-campus graduate business students higher than the on-campus traditional and on-campus distance education graduate business students. The consensus was that off-campus on-line distance education students spend more time studying and preparing assignments than on-campus traditional and on-campus distance education graduate students. This was validated in the questionnaire completed by the three student groups, the off-campus graduate business students spent up to 20 more hours per week more than the on-campus traditional students and up to 10 more than the on-campus distance education students on average.

Additionally, the faculty members who have participated in distance education initially report that they were overwhelmed with the amount of additional work required to prepare a distance education course. Some of the faculty reported that they spent an average of twice as much time preparing for the distance education courses than the traditional on-campus courses. Some faculty reported that the distance education courses require additional staff and technical support, in order to maintain a stable flow in the course presentation.

Administrators reported that there were no dramatic cost savings with the initial on-line distance education courses. Many reported that they expected the cost savings to accumulate as the distance education program expanded and student enrollments increased. Many administrators believe as the on-line distance education programs become more commonplace the student enrollments will increase accordingly. There was some discussion that additional fees should be collected due to the additional staff and support needed to assure effective distance education presentations.

SUMMARY

As distance education continues to dominate the academic interest of higher education, it becomes more and more apparent that a quantitative instrument is needed to determine which students are appropriate for specific educational environments. As distance education moves into a more virtual educational environment, the educators, as well as the administrators have an obligation to match each student with the appropriate learning environment. In graduate business education, a large majority of students are employed full-time and have constraints on their time schedule. Therefore, universities have to create learning environments that meet the time constraints of these students without negatively impacted their educational experience. Peter Drucker remarked in 1997, that "the universities of today are the dinosaurs of tomorrow," as the virtual computer environment develops many universities will not remain competitive and/or innovative enough to remain in the higher education market. It is the technological advancements that will distinguish the "virtual" universities, not the size and number of buildings they have.

The brave new world is one of netscape, websites, internet databases, research in real time, web rings, universal research locators and hypertext transfer protocols. The language is new and the technology is very evolving, almost without restraint. The challenge to business school educators is not to harness the internet technology, but to allow the students to unleash their creative and innovative minds to fully utilize the powers of the internet to make them more and more competitive in this global marketplace.

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CHAPTER FOUR

DEVELOPING GENDER-BASED CASES FOR THE GLOBAL CLASSROOM

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Abstract

Worldwide, people are entering the workplace unprepared to make appropriate professional and personal decisions related to gender. Diversity in the workplace will continue to be a major theme in the 21st century, with the influx of women continuing to rise in management, higher education administration and teaching, industry, communications, law and medicine. Men and women at all levels of employment must be taught how to appropriately manage the issues of gender which naturally arise within work teams and throughout the hierarchy of the employment setting. This paper identifies universal gender topics and provides suggestions for weaving these issues into the writing of cases for the global classroom.

KEYWORDS: Gender case development, International gender issues, Human resources, Leadership training.

INTRODUCTION

Case studies are highly effective teaching tools, which simulate possible experiences of students and workers and provide the opportunity to better understand gender issues in the workplace. In researching the availability of gender-related case studies in the United States and internationally, the author has concluded that there is a dearth of gender material in case collections, just as the number of reported gender-related problems in the workplace are actually on the increase. At the opening of the 21st century there are more women than men in college in many countries around the globe and there are more women than ever in top leadership roles, both in business and in public life. As women's lives have gotten better, their families have become better nourished, more productive and have become better educated. Despite the great strides in attaining women's rights, all too often women find that their access to education, employment, political influence and health care is limited solely because of their gender.

In all of written history there has not been a time or place where women have enjoyed complete equality with men. Since ancient times women have been considered inferior to men intellectually and morally. These attitudes play out in the workplaces around the world. Since women teachers and administrators are the minority in colleges and universities worldwide, it is obvious that parity will not be reached until male professors address these gender issues in concert with female professors. The writing of gender-based cases and the selection and teaching of these same cases, will provide an important contribution to the curriculum for future generations.

IDENTIFYING THE CATEGORIES OF GENDER ISSUES IN THE WORKPLACE

There are many work-related gender issues, which could be identified by employers and employees worldwide. The following five categories are meant to serve as themes for case writers who wish to develop gender-based cases for teaching or training:

1. Career development and mentoring issues.
2. Sexual harassment.
3. Gender discrimination in promotion, compensation, benefits.
4. Stereotyping of work by gender.
5. Balancing work and family.

CAREER DEVELOPMENT AND MENTORING

There is a positive correlation between an individual's career confidence, work satisfaction and the experience of having had a mentor. Mentors often serve as role models for a less experienced worker or student. We tend to identify an appropriate mentor from the ranks above us and therefore, for women, it can be difficult to identify a person higher up who may be willing and able to serve as a mentor. Often a woman must accept a man as her mentor because there are no women in the organization who have risen to a position of teacher and example. Case studies and interactive simulations need to be developed which would demonstrate how a male can successfully serve as a mentor to a young female, without crossing the line of impropriety. Likewise, cases are needed to demonstrate how a young professional woman can survey her potential role models and wisely select a man or woman to serve as her mentor. The mentor who feels absolutely passionate about one's work will likely be the person who can evoke strong passion and energy in the young professional. Interactive simulations demonstrating how to access the professional network, make connections, receive encouragement, advice, and intellectual stimulation from a mentor are needed. Learning the formal network of power relations within the organization and practicing decision-making skills would be important pieces to include in cases for personnel management and employee-training programs.

SEXUAL HARASSMENT

Many legal cases have been written about sexual harassment in the workplace in the past ten years. There is a wealth of true life examples waiting to be written into good case study material. The focus for case studies on sexual harassment could range from how the courts define sexual harassment in a particular country or state to how one goes through the reporting process within an organization. The emotional undertones and the long term psychological effects of unwanted sexual attention at work can be woven through the case. Whether an individual is being trained as a manager, a physician, a lawyer or social scientist, one must be taught how to deal with the aftermath of sexual harassment. Men in the workplace need examples of appropriate and inappropriate workplace behavior. Also important would be to report pieces of the legal actions and outcomes, including the sizable awards that have been paid by international companies, universities and individuals who have acted with impropriety. Currently, there are very few case studies available to teachers and trainers on this difficult issue.

GENDER DISCRIMINATION IN PROMOTION, COMPENSATION AND BENEFITS

Discrimination in the workplace is a major problem for women everywhere. It can take the form of job segregation, unequal pay, lack of training or advancement opportunities. Outright exclusion from certain fields is practiced in some countries. The demand for gender-related cases on the topic of discrimination is only going to increase in this new century. The issue of "glass ceiling" discrimination has been identified in all of the developed nations. Special health benefit problems faced by women in the workplace have been identified in many countries. The Scandinavian countries have led the way in developing laws, which granted women occupational freedom. In 1857, Denmark became one of the first countries, which allowed women to work in the trades, crafts and professions. In the United States, Iowa was the first state to admit a woman to the practice of law in 1869. It was not until 1920 that every state in the United States allowed women to practice law.

On an international level it was not until 1919 that the International Labor Organization (ILO) adopted the Maternity Protection Convention, specifying the minimum maternity leave and other rights for pregnant women. By the mid 1990's, however, this convention had been ratified by only 32 countries. In 1951 the ILO adopted the Equal Remuneration Convention, which mandated equal pay for work of equal value. In 1958 the ILO adopted the Discrimination Convention which prohibited sex discrimination in hiring, training and terms of employment. International anti-discrimination laws were passed to protect women in the workplace in the 1960's and 1970's. Many of these laws were based on ILO guidelines and were supported by women's movements. Some international laws impose no sanctions on employers. In Japan, an equal opportunity employment law does not actually prohibit discrimination against women; it simply advises employers to try to avoid it. Upon considering the international trend of employment discrimination against women, one must conclude that there exists a very high need for instructional material to be developed to teach working men and women how to bring more balance into the global workplace for all people.

GENDER STEREOTYPING

Stereotyping of work by gender is the fourth category for which educational materials are needed. Barriers to women in some professions, dominance of certain professions by one gender and refusal to consider women for entire categories of work are still prevalent attitudes worldwide. In Italy women are rarely seen in high-level jobs; for every 100 men in administrative or managerial positions, there are only four women in comparative posts. However, women in Italy have made great strides in technical and professional positions; for every 100 men in these jobs, there are 86 women. In Russia nearly 70% of all physicians are women, but most are either general practitioners or pediatricians, only 6% are surgeons. Women hold 11% of senior executive positions in Russia. One category where women are participating in much greater numbers globally is in self-employment. In Japan, for example, 19% of self-employed were women by the mid 1990's, up from 3% in 1980. This statistic is being repeated in the majority of nations where women have realized that they have the ability to go into business for themselves and be successful. In Canada, for example, women comprise almost a third of all self-employed workers, and they have been starting their own businesses at three times the rate of men. Case material describing self-employed women would be highly instructional for women and men in this new era.

BALANCING WORK AND FAMILY

Balancing work and family ranks very high on the list of concerns for working women. Child care issues, family leave policies and difficulties faced by dual-career couples are of vital importance to today's working couples. The majority of new jobs for women are temporary and part-time positions. These part-time jobs usually come with no benefits, such as a retirement program or life and health insurance benefits. Between 1983-87, 70% of all new jobs created in the European Union were part-time positions. A major problem for working mothers around the globe is finding adequate child care. The lack of adequate and affordable child care continues to be a serious obstacle to women entering and persisting in the labor force. Case studies which feature corporations and institutions, which provide high quality day care could provide the rationale for managers and governmental officials to provide such facilities within neighborhoods or at the workplace.

SOURCES OF MATERIALS FOR GENDER CASES

The most obvious source for subject material on gender-related issues is from the case writer's own workplace environment. The majority of working women can identify more than one situation which occurred to her or her colleagues during her working history. Male colleagues can simply interview their female colleagues or working women among their family members and friends to identify gender themes for good cases. Gender themes which should not be overlooked include same-sex gender issues and the more unusual reverse discrimination themes, where men are not treated equally with women in the workplace. Writing from first-hand knowledge and experience can allow the author to clearly report the behaviors on the part of the accused and the accuser and also to weave into the case the range of emotions experienced by the accuser. The more authentic the story, the more likely the trainee or student will understand the negative impact on the person, the working team and the company-at-large.

Other excellent sources for case ideas include newspapers and weekly news magazines, which regularly report gender-based career obstacles for women. Transcripts of court cases also provide details of litigation involving unfair practices toward women employees. Professional journal articles such as "Career Development for Women in Academic Medicine" from JAMA (Journal of American Medical Association) which describes many grievances female physicians at The Johns Hopkins University School of Medicine were experiencing and the steps being taken to correct the problems. Governmental reports such as the *Report of the Glass Ceiling Commission* by the U.S. Department of Labor or *The Position of Women in Norway* by the Ministry of Foreign Affairs discuss some of the visible and invisible barriers to women in the workplace. These examples represent some possible sources to research for real-life examples.

The richest source of case material is undoubtedly the internet. Tapping into several rich websites can lead the researcher to information covering a wide range of gender issues in the workplace. Several helpful websites are listed below to assist the case writer:

www.aauw.org
www.un.org/womenwatch/daw/cedaw
www.now.org/
www.inform.umd.edu/EdRes/Topic/WomensStudies/GenderIssues
www.sfgate.com
www.open.gov.uk/home_off/rsd/internat.htm
www.ualberta.ca/~slis/guides/women/main1.htm
www.qwebkvinnoforum.se

The case writer should note that one will often need to consult several sources to gather the story accurately. The author may need to conduct interviews with the individuals from a particular situation and, on occasion, may even have to create the unknown pieces.

CHECKLIST FOR CHOOSING GENDER ISSUES FROM THE WORKPLACE

The case writer will want to consider the following questions when choosing topics and developing cases on gender issues in the workplace:

1. *Does the case present a clear gender issue, such as those listed in the five categories mentioned previously?* Is there a repetitive pattern to the offensive behavior, can the employment or academic environment be described as "hostile," which is the legal term used to judge such grievances, or has the treatment of one supervisor to one employee (or student) been so egregious that disciplinary action on some level is warranted, either within the legal system or the institutional disciplinary system? Some cases may appropriately combine two or more of the gender categories, i.e., issues of career development *and* balancing personal and professional time, which could be combined in one case effectively.
2. *Is there sufficient information about the organizational culture? If not, can this material be created for the case?* Gender issues in the workplace often arise from the culture of the organization. Attitudes and behaviors, whether positive or negative, are imparted and nurtured, generally from the top down. A good case will include the cultural perspective, offering specific examples for the learner. Describing employment populations, which are more diverse, could demonstrate to the learner a more accepting attitude for individual differences.

3. *Are people clearly being treated differently and unfairly based on their gender or their sexual orientation in the case?* Proving unequal treatment is complicated and usually requires documentation, via personal journals, interactions, which have been caught on videotape, witnesses or multiple complainants who are willing to come forward to testify, data collection, which can be quantified, or outside consultants who are hired to evaluate the employment or academic environment. Anecdotal evidence is useful but needs to include widespread examples, corroborated by a variety of sources. Authors may be able to find facts beyond the original source through some careful research, or may be able to supplant details from a similar story to fully develop their case.
4. *Does the narrative illustrate the difficulty of addressing gender issues in the workplace, not only for the complainant(s), but also for the other players?* Typically peers, associates, superiors, outside clients, advisory boards, etc. have a role to play in dealing with gender problems in the workplace. An interesting case will include both the players directly involved and the actions and attitudes of some of these other parties.
5. *Can the case be studied from a variety of perspectives, including legal rights, corporate values and psychological impact?* Gender issues which are more subtle will be more interesting to study than the more obviously simple grievances. The writer must balance the presentation of a clear issue without describing a story, which is too elemental. Researching the usual psychological impact on the major players in a case under development will add intrigue and real-life drama to the case. Including the actual legal guidelines for the State or country represented in the case will assure a strong educational impact on the learner.
6. *Does the case provide the opportunity for international comparison?* There are very few gender-related examples available in the case collections of the world's finest universities. It is even a problem to find many cases where women are major players in the story, much less to locate examples from the five categories presented in this article. All global classrooms and training forums need educational material presented regularly and systematically if we are to eradicate these gender problems in the 21st century. International work opportunities for all professionals have increased dramatically in recent years. It is imperative that our students, professors, business employees, medical and legal professionals, engineers and technical communication experts understand the gender guidelines for their own culture and for any culture in which they are a visitor. Therefore, gender-related cases, which tend to be culture-specific can illustrate the nature of the problem and how it is resolved in one country and provide a basis of comparison for classrooms in other countries.

TEACHING RECOMMENDATIONS

Since there are so few prepared cases available, which explore gender-related issues, a teacher could assign teams to research and write a case on one of the suggested topics from this article. Providing background information on recent cases, i.e., Mitsubishi, the American military, the Vienna Philharmonic and the Swedish drug company, Astra, would provide a starting point from which to develop cases for discussion. Additional discussion leading to "what if" scenarios from the original student cases would be instructional. Learning how to report infractions, or better, how to prevent difficult gender-related problems in the workplace are major reasons to develop cases on these topics. Students could compare other working environments or foreign cultures and explore the different outcomes that might result. Performing role plays can vividly illustrate the emotional impact of gender bias to a class and will promote lively discussion about possible outcomes.

One of the goals of any gender case presentation is to teach which behaviors are appropriate, which behaviors are harmful and which behaviors are illegal. The level of punishment for breaking the law in any given state or nation is also important to emphasize. A second goal, and perhaps more important than presenting the basic gender issues outlined above, is to provide an opportunity to examine the attitudes of employers and workers, which are rooted in sociological, psychological and political factors. Cultural attitudes and traditions are important to discuss with students, whether the case represents a national or international problem. When training managers and leaders for the global workplace, cross-cultural differences must be woven into the gender-based case. Global thinking will become more common in the 21st century as new leaders are trained to take over. Minority populations, including women, will gradually become majority players. Women and minorities can no longer be denied access to top leadership positions. Case writers, therefore, must focus on diverse populations and present examples of successful women and minorities in decision-making roles.

The bibliography presents some references, which will be particularly useful in developing case stories that speak to the changing demographics, gender differences in management and global competition in the workplace.

CONCLUSIONS

Women around the world are continuing to report gender-based career obstacles, discrimination and harassment in the workplace. While progress has clearly been made in many areas, women still resist filing reports for fear of losing their jobs, being viewed as a complainer, or worse, being regarded as a troublemaker. Many women are advised to stay silent and endure the pain or quietly change work environments. It is estimated that fewer than 10% of women experiencing gender-based problems have the courage to come forward to disclose the problem and a smaller percentage of those workers actually file a grievance.

Men and women need formal and informal training programs on the basic behaviors, which constitute inappropriate and illegal actions. Since the case study method has been widely accepted as an excellent teaching tool, it follows that students and employees of all ages would benefit from instruction using this method. By the close of the 20th century, very few case studies on gender-based problems have been developed. It is time for case writers to prepare traditional case studies, interactive cases and video role plays to demonstrate the nature of the problems, how to prevent them, how to report them, and what it costs both emotionally and economically to the individuals and to the institutions/corporations.

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CASE WRITING BY PARTICIPANTS: A REVIEW OF A RECENT EXPERIMENT AND AN ANALYSIS OF ITS EFFECTS ON LEARNING TRANSFER

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Abstract

The observed failure in the transfer of learning to more effective practices amply justifies the need for innovation in both the design of training programs and new pedagogical strategies. This article provides an analysis of a management training program developed for a major financial institution. The author also presents the results of an experiment in which participants were required to write a case study about their organization before the course began. This experiment is analyzed with regard to the dynamics of learning transfer. The reported results are sufficiently conclusive and merit being viewed as a partial solution to the observed failure in learning transfer.

INTRODUCTION

According to Pfeffer and Sutton:

> "In 1996, more than 1,700 business books were published…Each year more than $60 billion is spent on training in and by organizations, particularly management training…[and] billions of dollars are spent on management consultants by organizations seeking advice—one estimate for 1996 was $43 billion…But that advice is seldom implemented…[and] the translation of this research and management education into practice proceeds fitfully and slowly."[1]

They continue by arguing that "There is little evidence that being staffed with people who have an advanced education in business is consistently related to outstanding organizational performance."[2] Part of the explanation is provided by Tardif, who notes that "teachers develop various pedagogical scenarios and teaching strategies, but learning transfer still remains *a hoped-for reality rather than a fulfilled dream*…for a very large number of learners in all teaching areas in general…whereas the *goal of education* consists fundamentally in providing the necessary opportunities for learners *to become more efficacious in life*."[3]

Innovation in the area of pedagogy is thus highly necessary. This innovation must apply to all aspects ranging from program design to the pedagogical material used. In this article I discuss an experiment conducted at the École des Hautes Études Commerciales (HEC) Montréal. For over two years, we have been providing a training program to more than 400 managers at a Québec financial institution (the Mouvement des caisses Desjardins).[4] This program was designed to support the reengineering activities currently taking place within this financial institution, Québec's largest.

This article is divided into four parts. First, I present the context and particularities of this "Change Leadership" training program. Within the framework of the program, I gave a course entitled "Becoming a Learning Organization."[5] The second part of the article provides a brief presentation of the course. It was here that I introduced the idea of having the participants write up a case focusing on their organization, which was subsequently integrated into the course. I present and discuss this experiment. To do so, I developed a questionnaire, which was distributed to the participants in the first three groups enrolled in the course "Becoming a Learning Organization." Of the 75 participants, 27 completed the questionnaire. I present their views about case writing and the use of their own cases in the course. I also wanted to learn whether this new approach—for them and for me—had an impact on individual as well as organizational learning transfer. The results of the questions with regard to these dimensions are discussed. Part three provides a brief presentation of a conceptual framework favorable to learning transfer. This partial framework, taken essentially from Tardif,[6] enables us to step back somewhat from this dual experiment (program and case writing by participants) with a view to drawing out generalizable learning. I end with a brief conclusion.

THE "CHANGE LEADERSHIP" DIPLOMA

The Context

The "Change Leadership" diploma program offered to Caisses Desjardins management personnel is part of a significant change process taking place within this institution. There are six major stages to this transformation: the Caisse's commitment to the process of change; the business plan; the optimization of competencies; Desjardins's business posture; the organizational structure; and ongoing improvement. It is also based on a choice of sixteen prioritized competencies—taken from the "career architect"—for Caisse management personnel. The anticipated changes must move the Caisse from a "transactional" to a "relational" approach to its clientele.

The Service We Provide

The diploma program developed for the Caisses Desjardins consists of two stages: the first stage is built around the recognition of credentials and background (15 credits); the second consists of 15 course credits.[7] The credentials and background recognition stage, a first of this scale at the HEC,[8] is based on the principle that significant learning takes place in the Caisse itself. The above-mentioned change strategy takes the form of "deliverables" consisting of new businesses processes the Caisses must implement. For each of these deliverables, the persons in charge not only organized training sessions but also named individuals responsible for dissemination. Seminars and multiplier personnel are thus at the heart of the new learning activities required for implementing the new business processes. Within the framework of a diploma designed to support the changes, a "credentials and background recognition" dimension made sense. As such, we agreed to accord 15 credits with the condition that the participants submit a 10-page written assignment on each of the six deliverables. These papers were to take their inspiration from a questionnaire (one for each deliverable) designed specifically to this end. These assignments were then marked at the university.

The program's second part is made up of seven courses, from which participants are required to choose five.[9] This list of courses was discussed with Mouvement Desjardins training authorities. In this way, it was conceived as a function of the managers' current needs in the context of the Caisse's reengineering process. As such, both the course descriptions and the pedagogical material were continually adapted to the needs of the Caisses and the participants. The courses were offered only to Caisses Desjardins management personnel (homogeneous groups), and given on a negotiated schedule that took into account the respective time constraints of the participants and the professor alike. Half the courses were given in locations close to the workplace, with the other half given at the HEC. The courses were given in three two-day blocks or two three-day blocks. The time period between blocks varied, though it respected an average of three weeks, thereby providing time for course preparation and completion of assignments. All courses were taught by senior professors, instructors and career professors. The average overall evaluation of the courses by the participants was 3.65/4, or better than 90%. We thus obtained a very high degree of satisfaction for the "teaching" dimension of this made-to-measure program.[10]

BECOMING A LEARNING ORGANIZATION

The Course: Objectives and Pedagogical Approach

"Becoming a Learning Organization" was developed during the winter of 1999 and has been given three times since May 1999. It is anticipated that it will be given four times during 2000. Each group is composed of around 25 participants. The course is based largely on the work of MIT's Peter Senge. It is thus subdivided into major themes such as barriers to learning, personal control, mental models, shared vision, team learning, and a learning organization's development strategy.

The course objectives are the following: define the concept of a learning organization; identify the barriers to learning in organizational settings; sensitize participants to the disciplines constituting the basis of organizational learning; elaborate a strategic perspective "for becoming a learning organization"; and analyze the practices of cutting-edge corporations acknowledged as learning organizations.

Case studies make up the preferred pedagogical method. Seven cases were developed for the occasion. These cases are inspired from three data sources. Firstly, there are cases of business cited in the literature. These cases were written up by drawing on various sources of information. Secondly, one case concerns a Caisse Desjardins, based on interviews and available documentation. Lastly, a short case was developed on the basis of the book *Jonathan Livingston Seagull* in order to illustrate the dynamics of a life-long learner. All the concepts are presented and discussed in class. They serve as a backdrop for supporting and framing discussion of the cases to be examined in the program. The participants are also required to work in subgroups on a variety of issues related to concepts, cases and exercises. In addition, the participants' cases are also integrated into the program.

Case Writing by Participants[11]

In order to ensure that the participants were better prepared for the course and to foster a greater capacity for learning transfer, the participants were asked to write up a roughly ten-page case focusing on their Caisse. The cases counted as the first course assignment, and were worth 50% of the final mark.

Given that the participants had no understanding of the concept of a learning organization, they were provided with a precise questionnaire, which served as a framework for writing up their case.[12] In order to cover all the issues raised in class, the group was subdivided into five subgroups, the members of which (around five per group) were required to write up a case dealing with one of the five themes. We developed five different questionnaires, one for each of the themes. These questionnaires were developed on the basis of a synthesis of the various concepts, which was elaborated for this course. Even though the participants had no knowledge of the concepts, within the context of the course they encountered this same framework as the basis of the cases they were required to present. They had approximately three weeks to write up their case, which they were required to submit to the professor on the first day of class. They were also forewarned that the cases would be distributed to the other course participants at the end of the first day. As such, they had to bear in mind the public nature of their work.

These cases were integrated into the course itself. A typical day was divided up in the following manner: the morning was devoted to the analyses of the "general" case and to a discussion and presentation of the concepts related to the theme; and the afternoon was given over to discussing the participants' cases. As such, each afternoon saw five cases focused on the Caisses articulated around the same theme. This gave the participants the opportunity to discuss the cases first in subgroups (five subgroups constituted around the case writer), then with the class as a whole. After five days, we had thus discussed the 25 cases focused on the Caisses, with the afternoon of the sixth day reserved for summary and review.

The participants were also invited to use these cases as examples and sources for solutions for their second assignment, which dealt with developing their Caisse as a learning organization. This second assignment completed the grading for the course.

The global evaluation of the course was quite high (3.65/4); the participants displayed a very high degree of satisfaction as much with the content as with the pedagogical approach.

EVALUATING THE EXPERIMENT

Analysis: Questionnaire and Results

Given the interrelated issues, which I noted in the introduction, it is not only important to innovate at the pedagogical level, but also to validate the impact of the innovations with regard to learning transfer. To this end, I developed a short questionnaire, which was distributed to the participants. The questionnaire contained 22 questions on two pages such that it could be completed in less than 20 minutes. I wanted to validate the participants' reactions with regard to the following: case writing (five questions); using the cases in class (six questions); and facilitation of learning transfer (ten questions). The final question validated the general interest with respect to case writing integrated into the course. For each question, participants had the option of responding: (1) disagree completely; (2) rather in disagreement; (3) rather in agreement; and (4) agree completely.

The questions pertaining to *case writing by the participants* validate the relevance of the objectives justifying this pedagogical approach, the relevance of the distributed questions, the level of difficulty in the case writing, the deadline for submission, and the likely feeling of discomfort about writing up a case that would be used in class. The results are given in Table 1.

TABLE 1
CASE WRITING BY THE PARTIPANTS

		1-2-3-4	**1-2-3-4**
Part 1: Case Writing			
(1) The objectives justifying the use of this pedagogical approach (case writing by participants) were clearly explained.	27	**Mean = 3.26** St. dev. = .66 Sum = 88/108	Frequency 1 : 0 2 : 3 3 : 14 4 : 10
(2) The questions (by themes) given to you as a framework for writing up your case were adequate.	27	**Mean = 3.37** St. dev. = .63 Sum =91/108	Frequency 1 : 0 2 : 2 3 : 13 4 : 12
(3) The difficulty level of the case writing was acceptable.	27	**Mean = 3.11** St. dev. = .58 Sum =84/108	Frequency 1 : 0 2 : 3 3 : 18 4 : 6
(4) The deadline for submitting your case was acceptable.	27	**Mean = 3.22** St. dev. = .75 Sum = 87/108	Frequency 1 : 0 2 : 5 3 : 11 4 : 11
(5) The fact of being required to write up a case focussed on your Caisse did not create an uneasiness on your part that might have made you feel uncomfortable about the course.	27	**Mean = 3.44** St. dev. = .64 Sum = 93/108	Frequency 1 : 0 2 : 2 3 : 11 4: 14
Case Writing **Total for the first section**	27	**Mean = 3.28**	

As we can note by looking at the frequencies, a strong majority of the participants are situated between *rather in agreement* (3) and *agree completely* (4) for all the questions. The two questions with the lowest scores are related to difficulty level (3.11) and the deadline for the case writing (3.22). The highest mean is achieved for the question pertaining to the degree of comfort about writing a case about their Caisse and then presenting and discussing it in class.

The questions dealing with *using cases in class* validate the participants' attitude, the utility of case studies for understanding concepts, the degree of preparation of the cases written up by the other participants, the impact of these cases relative to their preparedness for the course, the utility of these cases for meeting their objectives, and the utility of these cases in establishing links between theory and practice. The results are provided in Table 2.

TABLE 2
USING CASES IN CLASS

Part 2: Using Cases in Class		**1-2-3-4**	**1-2-3-4**
(6) The in-class use of cases written by participants was satisfactory (respect for others, climate, discussions).	27	**Mean = 3.30** St. dev. = .67 Sum = 89/108	Frequency 1 : 0 2 : 3 3 : 13 4 : 11
(7) The use of these cases to facilitate understanding and mastery of concepts proved to be better than using general cases (Chapparal, Motorola, GE, etc.).	27	**Mean = 3.11** St. dev. = .97 Sum = 84/108	Frequency 1 : 2 2 : 5 3 : 8 4 : 12
(8) Your level of preparation for cases written by the other participants was satisfactory.	27	**Mean = 2.74** St. dev. = .35 Sum = 74/108	Frequency 1 : 1 2 : 6 3 : 19 4 : 1
(9) Having to prepare the cases written by the participants (pertaining to your respective Caisses) increased the extent of your preparation for the course "Becoming a Learning Organization."	27	**Mean = 3.15** St. dev. = .52 Sum = 85/108	Frequency 1 : 1 2 : 2 3 : 16 4 : 8
(10) The cases written by the participants facilitated the meeting of your objectives for this course.	27	**Mean = 2.93** St. dev. = .78 Sum = 79/108	Frequency 1 : 2 2 : 3 3 : 17 4 : 5
(11) These cases helped the establishment of links between theory and practice (the concrete realities of your Caisse).	27	**Mean = 3.19** St. dev. = .83 Sum = 86/108	Frequency 1 : 2 2 : 1 3 : 14 4 : 10
Using cases in class **Total for the second section**		**Mean = 3.06**	

The questions pertaining to the in-class use of cases reveal a lower global success rate than those about case writing. The overall mean for the first part is 3.28 compared to 3.06 for the second part of the questionnaire. This tends to demonstrate that the participants did not get as much out of the cases as a pedagogical approach as I had hoped. The main indicated weaknesses concerned the degree of participant preparation for the cases for in-class discussions and the meeting of learning objectives through the use of the cases, two dimensions, which are surely interrelated. Inasmuch as the participants did less preparation for the Caisse cases, it is not surprising that they did not learn as much from them. The question here is whether the participants invested less in the cases submitted by their colleagues. A few avenues need to be pursued. Are these cases of lower quality? Are the participants less interested because the cases are written by their peers? Are there too many cases, which prevents the participants from investing the required amount of time for studying them? Without being negative, the in-class use of cases proved to be the weak point in the approach. It will thus be necessary to reconsider the strategy for integrating this material into the course, particularly since the majority of the cases were of good quality.

The questions concerning the *ease of transfer* encompassed the following points: impact on the participants' personal development (knowledge acquisition, improvement of understanding of this knowledge, attitude to work, attitude towards their Caisses, and modification of certain behaviors); and impact on their Caisse's development (sensitivity to certain issues related to a learning organization, enhancing their diagnosis of their Caisse as a learning organization). The results are given in Tables 3 and 4.

TABLE 3
FACILITATION OF TRANSFER TO THE ORGANIZATION: IMPACT ON PERSONAL DEVELOPMENT

Part 3: Ease of Transfers			
(12) As much the writing of your cases as the reading of those prepared by your colleagues helped you in completing your 2nd assignment: *Developing a Strategy for becoming a Learning Organization.*	27	**Mean = 2.93** St. dev. = .78 Sum = 79/108	Frequency 1 : 1 2 : 6 3 : 14 4 : 6
(13-17) **Impact on your personal development**: the writing of a case on your Caisse and the analysis of those by your colleagues enabled you to:			
✓ Increase your acquisition of knowledge	27	**Mean = 3.19** St. dev. = .79 Sum = 86/108	Frequency 1 : 1 2 : 3 3 : 13 4 : 10
✓ Improve your understanding of this knowledge	27	**Mean = 3.22** St. dev. = .70 Sum = 87/108	Frequency 1 : 1 2 : 1 3 : 16 4 : 9
✓ Modify your attitude to your work	27	**Mean = 2.81** St. dev. = .83 Sum = 76/108	Frequency 1 : 2 2 : 6 3 : 14 4 : 5
✓ Modify your attitude to your Caisse	27	**Mean = 2.70** St. dev. = .78 Sum = 73/108	Frequency 1 : 2 2 : 7 3 : 15 4 : 3
✓ Modify certain behaviours	27	**Mean = 2.78** St. dev. = .75 Sum = 75/108	Frequency 1 : 2 2 : 5 3 : 17 4 : 3

Impact on the Participants' personal development		**Mean = 2.94**	

Two conclusions emerge from the statistics presented in Table 3. Firstly, the participants do not make the link between case writing by themselves and by their colleagues and changes to their attitudes and behaviours. On the other hand, they acknowledge the utility of cases for improving both their acquisition of knowledge and their understanding of knowledge related to the learning organization phenomenon. Here, we have to hypothesize that the impact on acquisition and understanding could be greater if the problem of case use in class were resolved.

TABLE 4
FACILITATION OF TRANSFER TO THE ORGANIZATION: IMPACT ON ORGANIZATIONAL DEVELOPMENT

(18-21) **Impact on the development of your Caisse**: writing up a case on your Caisses and the analysis of those by your colleagues enabled you to:			
✓ Increase your sensitivity to certain key issues regarding learning organizations	27	**Mean = 3.59** St. dev. = .57 Sum = 97/108	Frequency 1 : 0 2 : 1 3 : 9 4 : 17
✓ Enhance your diagnosis of your Caisse as a learning organization	27	**Mean = 3.44** St. dev. = .75 Sum = 93/108	Frequency 1 : 1 2 : 1 3 : 10 4 : 15
✓ Discover avenues for elaborating a strategy for becoming a learning organization	27	**Mean = 3.26** St. dev. = .76 Sum = 88/108	Frequency 1 : 1 2 : 2 3 : 13 4 : 11
✓ Discover solutions for facilitating the establishment of a learning organisation	27	**Mean = 3.30** St. dev. = .72 Sum = 89/108	Frequency 1 : 1 2 : 1 3 : 14 4 : 11
Impact on the Development of the participants' Caisse		**Mean = 3.40**	
Facilitation of transfer Total part three	27	**Mean = 3.12**	

The results given in Table 4 reveal, however, an interesting avenue with regard to knowledge transfers to organizational development. The mean result here (3.40) is the highest compared to the previous sections (writing, use, and impact on personal development). It is important to note the greater sensitivity to certain key issues related to the learning organization (mean of 3.59) as well as to enhancing their diagnosis of their Caisse as a learning organization (3.41).

Lastly, as indicated in Table 5, it is important to draw attention to the fact that global evaluation of the overall pedagogical approach is very positive, with a mean score of 3.41.

TABLE 5
GLOBAL EVALUATION

Global Evaluation			
(22) In light of your experiences in the course "Becoming a Learning Organization," you would recommend this kind of pedagogical approach	27	**Mean = 3,41** St. dev. = .80 Sum = 92/108	Frequency 1 : 1 2 : 2 3 : 9 4 : 15

What Should be Retained from these Results

Firstly, we can note the clear influence on the *transfer of learning to organizational development*. From the participants' response, we can also retain the *level of comfort with the overall approach*, as much with regard to case writing as to its use in class. The relevance of the support material for the case writing (the questionnaires) is also worthy of note. At the personal level, the participants indicated the favourable impact of this pedagogical strategy with regard to the acquisition (mean of 3.19) and understanding (mean of 3.22) of knowledge. Lastly, the overall approach is appreciated by *the participants, who strongly recommend it.*

Certain weaknesses in the design of the pedagogical strategy should also be mentioned. The main flaws are the *in-class use of cases* and the impact on transfers to personal development. The weakest results concern their *attitude to work and to their Caisse and behaviour modification*. It is no doubt relevant here to acknowledge the limits of the overall context (a training program) with regard to learning transfer and to the adoption of new attitudes and behaviours. The indicated weakness with regard to the in-class use of cases can, however, certainly be corrected. This calls for further thought.

SOME AVENUES FOR CONSTRUCTING A THEORETICAL FRAMEWORK[13]

Curriculum Barriers

Tardif identifies several barriers related to educational organization which seriously limit learning transfer. He notes that educational approaches are guided by the characteristics of a *teaching paradigm rather than those of a learning paradigm*.[14] In its conception of knowledge and competencies, disciplinary logic constantly predominates over the logic of learning. As such, *the utility of knowledge and competencies with regard to social and professional integration* does not constitute a major concern for educational personnel.[15] These same educational approaches are designed according to the *assembly line* principle. Consequently, teachers have a very poor awareness of what learners possess and will accomplish in terms of learning. In addition to disciplinary sectioning is the foreseen duration of each period. This fractionating of time does give learners and teachers the opportunity for in-depth exploration of various issues or for investing in situations that re-contextualize learning. Lastly, he notes that this *organizational framework absolves teacher responsibility* with regard to all the skills learners must master upon completion of training.[16]

In Tardif's view, then, it is essential to eliminate these barriers for the school and the classroom to become sites sharply focussed on the transferability of knowledge and skills. He argues for the creation of an *integrated and integrating curriculum* within which each discipline is no longer taught for its own sake but with a view to its participation in a global project. To this he adds the *need to highly individualize learner trajectories*.

The foregoing theoretical referents allow us to evaluate not only the experimentation undertaken in the course "Becoming a learning Organization," but also and above all the program encompassing this course. The concerns underlying the "Change Leadership" diploma program display the features of what Tardif calls a *learning paradigm*. The program's design is based on the analysis and understanding of needs related to the current reengineering process at Desjardins. Indeed, the program's architecture, built around two components—credentials and background recognition and a range of course electives, chosen by participants—elaborated in collaboration with training personnel at the Mouvement

Desjardins, illustrates the priority accorded to the learning paradigm. The professors involved in designing the courses had to take into account the learning objectives for each of the offered courses. As such, the absolution-of-responsibility phenomenon with regard to learner skills did not set in among the professors, all the more so since they had to devote considerable energy to giving each course.[17] Thus, disciplinary sectioning had to be particularly well integrated with the participants' clearly expressed needs.

This integration was also beneficial for the margin of maneuver with regard to *the organization of teaching periods*. Being able to structure their teaching into blocks of two or three days provided teachers with the opportunity for in-depth exploration of various issues. For example, in the course "Becoming a Learning Organization," we were able to devote the morning to discussing the concept of barriers to learning in organizational settings from both a theoretical and an empirical (case studies) point of view. And while the participants digested this new, already-contextualized knowledge, if only within an anonymous organizational framework, we devoted the afternoon to working on transferring this knowledge to the "Caisse" context via discussions of five cases.[18]

We can thus justifiably maintain that the creation of an integrated and integrating curriculum within which each discipline is part of a global project has been sufficiently realized in the "Change Leadership" diploma program. The need to indivudalize learner trajectories is clearly fostered by the requirement that they write up a case concerning their Caisse.

Pedagogical Barriers

To the curriculum changes must be added the renewal of pedagogical and evaluation practices which present a *high degree of coherence relative to the characteristics of the learning transfer dynamic*.[19] *Learning must be planned on the basis of problems, projects, and contexts*. The goal is to bring about significant changes in the learners' cognitive base with regard to thinking processes, understanding, and action.[20]

The *learning transfer dynamic* rests on seven processes.[21] The first process—*encoding*—begins when individuals are in the initial context of learning knowledge or skills. These latter are projected into eventual contexts of re-use. This process requires individuals to integrate concerns about the transferability of what they learn from the outset. The second process—*representation*—incites individuals to give a meaning to or create a mental model of the problem to be resolved. This mental model constitutes the basis for the quest for knowledge and already-mastered skills. This is followed by the third process, namely, the obligation individuals have *to take stock in their long-term memory* of their knowledge and skills apt to contribute to solving the problem. The fourth process consists in *the search for correspondence*, for similarities between the learning and the transfer situations. The fifth process entails the *adaptation* of dissimilar elements. The sixth process is based on the recognition of *the mental model's relevance* as the appropriate basis for solving the problem. And lastly, the seventh process involves the generation of *new learning*.

To this dynamic are added a few postulates about learning transfer:[22]

- What counts is the learner's *subjective perception* of the characteristics of the learning tasks relative to the context towards which the transfer will occur. Only the aspects that learners themselves attribute to the tasks in question provide the necessary basis for determining whether a transfer is likely;
- It is wrong to believe that *something very general* developed outside of any particular context will become transferable to *something particular;*
- Transfer is a particularization rather than a generalization process. With a view to supporting learning transfer, one cannot limit oneself to a few examples or a few specific situations. *Each learning situation must therefore be highly contextualized.* Transfer is influenced by recognizing situations and not only recognizing data;
- In the perspective of teaching centered on learning transfer, the teachers must *plan systematic actions* to influence the probability that the learners will re-use their knowledge and skills outside the initial learning context;
- The shift from *what* (theoretical teaching) to *how* (practical teaching) and *why* and *when* (conditional teaching) does not correspond to learning transfer;

- Learning transfer requires the *attribution of meaning*, or at least a recognition of meaning. As such, we must conceive of *knowledge as a tool for supporting premeditated action*, and not only as data or facts considered in a de-contextualized manner;
- Learners must therefore develop a pragmatic relationship to knowledge and information. This becomes all the more important in that *they are the ones who decide whether or not a transfer takes place*.

It is not possible for me to illustrate the transfer dynamic in its entirety on the basis of the experiment discussed here (case writing by participants). Nevertheless, we can stress the *search for coherence* in relation to the transfer dynamic briefly presented above.

The key upon which the entire transfer strategy rests is *contextualization*. By the same token, we must also acknowledge the impossibility of transfer on the basis of a general context. Transfer is also a highly personalized process. It is thus necessary to take into account, in a pedagogical strategy, the transfer phenomenon's specific subjective aspect, that is, from the learning task to the context of re-use. This subjectivity is clearly reinforced by the search for meaning, which allows for conceiving knowledge as a tool for supporting premeditated action. The importance accorded to contextualization is reinforced by its necessary presence from the beginning of learning. Lastly, each of the stages specific to the transfer process underscores the links to be made with the "problem to be solved." To an equal extent, the creation of a mental model on the basis of new knowledge, the inventory of prior knowledge, the search for and adaptation of correspondences, and so on, are based on the taking into account of the context towards which the transfer must take place.

In this perspective, a pedagogical strategy based on *case writing by participants brings to the forefront the contexts towards which the transfer of the newly acquired knowledge will occur*. The participants are required to get this contextualization effort underway three weeks before the course begins. Despite the fact that they had to write up a case focussing on one of the five themes covered (all of the questionnaires are distributed to them during the first class), the question "Why become a learning organization?" was systematically returned to. Following this, a substantial portion of class time was devoted to the issue of contextualizing learning. Both the general cases and the 25 cases involving the individual Caisses bore witness to this concern. Reaching the main objective—learning transfer—was aided by the *contextualization* and *re-contextualization* of the knowledge specific to each theme. Herein clearly lies part of the explanation for the high scores by the participants with regard to the impact on organizational development. Nor can we neglect the fact all the participants work in a Caisse. Notwithstanding the fact that each participant worked in a different organization, the similarity of contexts remained quite high. This is to say that the many discussions continually reinforce this contextualization.

The taking into account of the concept of a learning organization as a (partial) solution to the learning problems led to the creation of a mental model generative of meaning. The in-class discussions, concerning both concepts and cases (the general cases for the most part), allowed for validating the relevance of doing so. The construction of this mental model was reinforced by discussions of the concepts, and the participants were given a syntheses of each theme which took the form of analytic frameworks (PowerPoint). The analytic frameworks developed in this way were systematically applied during the discussions of cases. The case discussions reinforced the relevance of these mental models since they had been written with reference to these same concepts through the use of the questionnaires.

Inasmuch as it is the participants themselves who must make the transfer decision, it is necessary to take into account their manifested degree of comfort with the pedagogical approach. We were able to verify this comfort level with the approach's various aspects with regard to: knowing whether it made them uncomfortable (3.44); mutual respect by participants (3.30); and their overall appreciation (3.40).

The transfer dynamic illustrated in the foregoing also helps explain the low scores with regard to transfer towards individual development. Despite the very considerable interest they displayed with regard to the course "Becoming a Learning Organization," generally speaking (3.85/4 in terms of the evaluation), the contextualization effort was much more systematically focused on the organization, thereby leaving the participants to their own devices with regard to transferring the acquired knowledge to attitudes and behaviors to be developed. In this regard, they attested to the pedagogical strategy's (case writing by the participants) positive impact on the acquisition and understanding of knowledge, all the while establishing only a very weak link with attitude and behavior change.

CONCLUSION

The observation by Pfeffer and Sutton and Tardif of a very low learning transfer to use contexts (Pfeffer and Sutton speak of the difficulty of adopting new, more efficient practices) was our starting point for critically examining the "Change Leadership" program and the course "Becoming a Learning Organization," and more specifically the experiment requiring participants to write up their own case and subsequently integrated into the pedagogical strategy. The brief presentation of the learning transfer dynamic is very useful in the analysis of this important issue.

The survey of the course participants reveals various points of coherence between the experimented pedagogical strategy and the characteristics of the learning transfer dynamic. We also noted the limits of this strategy with regard to attitude and behavior change. I am not suggesting here that it would be impossible to overcome this weakness, but that it would clearly require adapting the various tools, which are currently more sharply focused on the organizational dimension.

It is clear that the program as a whole is also a necessary condition within which a pedagogical approach fostering learning transfer must be articulated. Here, too, various points of convergence of the theoretical framework and the transfer dynamic were well illustrated.

In conclusion, the experimented pedagogical strategy analyzed in this article reveals its relevance to fostering learning transfer and enabling learners to become more efficacious in life. It needs, however, to be refined as much with regard to its objectives (individuals versus organizations) as to its implementation (use strategy in class). The research methodology adopted here enables us, however, to go beyond the participants' perceptions of the nature and importance of transfers. In all events, we were able to *illustrate the convergence* of the *program's design* and the *pedagogical strategies* in the course "Becoming a Learning Organization," on the one side, and the *theoretical foundations* of learning transfer and the *participants' perceptions*, on the other.

ENDNOTES

1. J. Pfeffer and R. Sutton, *The Knowing-Doing Gap* (Harvard Business School Press, 2000), 1-3.
2. Ibid., 3.
3. Jacques Tardif, *Le Transfert des Apprentissages* (Les Éditions Logiques, 1999), 132.
4. Desjardins Credit Union Movement. The French word *Caisse* (credit union) is retained throughout this article to reflect the specificity of the Desjardins Movement (translator's note).
5. In this program I was also responsible for the course "Management practices in Cooperative Settings," in addition to assuming overall co-ordination of pedagogical activities.
6. Op. cit.
7. Diplomas are 30-credit undergraduate programs, that is, the equivalent of 10 three-credit courses (45 hours per semester).
8. It should be noted that this program drew more than 450 participants, all of whom were Caisse management personnel.

9. The seven courses developed for the diploma are: Management practices in Cooperative Settings; Internal Corporate Communications; Managing and Organizing Sales teams; Managing Change; Consolidating Transformations; Analysis of Industry Trends; and Becoming a Learning Organization.

10. For a more systematic assessment of a similar program, see D. Côté, "Compétences et formation sur mesure: leçons tirées du partenariat "Mouvement Desjardins / HEC," Conference Proceedings, *Enseigner et apprendre autrement*, HEC, Sixteenth International University Pedagogy Conference.

11. The idea of having the participants write up a case was given to me by professor Guy Archambault (HEC).

12. These questionnaires were elaborated by professors Daniel Côté and Jean-Michel Viola (HEC).

13. This section is informed by Jacques Tardif, op. cit.

14. Tardif, op. cit., 132.

15. Ibid., 136.

16. Ibid., 142.

17. The obligation to give a small number of courses (seven) in a limited time period (two years) to a large number of participants (450) required each professor to teach his or her course around 10 times during this same period of time. The professors also had to take into account the fact that the participants enrolled in their courses had to or would take other courses during the same limited time frame. This context, in addition to high participant expectations and demands, did not allow for any easing up with regard to their responsibilities in the areas of learning and transfer.

18. The effort required by teachers to manage this kind of context must be mentioned here. Its preparation, particularly the cases written up by the participants, led to a part of the results in the area of transfer.

19. Tardif, op. cit., 167.

20. Ibid., 172.

21. Ibid., 72-86.

22. Ibid., 52-53.

CASES FROM THE THEORY OF INVERSE PROBLEMS IN MATHEMATICS

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Abstract

Most math professors focus their presentations on abstractions. It is true, some students are fascinated by abstract intellectual games but the majority of them want to know what you do with all those equations. They want to taste the excitement of real life problems that are being solved by mathematicians. It is the professor's responsibility to make the abstractions relevant to real life experiences and to show their class the achievements that are accomplished every day.

The theory of inverse problems is a fascinating area of math and a lot of students could be attracted to this field if they could only see some of the exciting problems that can be solved

INTRODUCTION

The well known American mathematician Morris Kline in his book, "Why the Professor Can't Teach" states the following: "All things considered, the very nature and demands of research and teaching are so diverse, the personalities and abilities required so different, that only a rare individual with an abundance of energy can undertake to excel in both areas - at least during the same period of his life. Generally, good performance in teaching is in inverse proportion to efforts in research. Of course, some research men may be willing to teach, but ability to do so is another matter. Their wisdom may be consumed in their research."

The conflict between research and teaching in mathematics is very real, indeed. Gauss one of the three greatest mathematicians in our history did not like to teach and expressed this clearly in one of his letters in 1802: "I have a real aversion to teaching. For a professor of mathematics it consists of eternal work to just teach the ABC's of his science; of the few students who go on, most continue to gather a file of information and become only half-educated, whereas the rare gifted students will not allow themselves to be educated through lectures but instead learn by themselves. And through this thankless work the professor loses his precious time." Newton a professor at Cambridge University was also a poor teacher. Quite often no students at all attended his lectures. But Gauss was Gauss and Newton was Newton and Archimedes, the third of the "greats," was not even a teacher.

Today in universities all across USA, professors of mathematics need to do both research and teaching. And some, the lucky ones at they say, they are mostly involved with the teaching of graduate courses. One might claim that graduate students do not rely on good teachers to pursue their dreams. Unfortunately, this is not the case. Graduate students in mathematics quite often have difficulty staying motivated and inspired and they drop out of the field. Some might go into engineering others might pursue careers in computers. Is there anything wrong with these careers? Absolutely not, but we need to find out why otherwise able, intelligent and hard working young men and women change their minds about math. Why did they start graduate work in math? Where did they go wrong? Did they find math harder than they had imagined? Didn't they know that math is hard?

Students come to graduate school with different drives and preparation. They also come with different expectations. Obviously, they drop out because these expectations are not met. The work is very hard and they might feel that the whole effort is not worthwhile. Keeping the interest in math alive is not possible if one can not see the connection of math with the real world. The most severe limitation of math is that it deals with abstractions. To most people abstraction is very uninspiring. It is unsparing even to many math majors. The reason that students are involved in mathematics is because they want to use it, but they often do not see how. Traditionally math had been concerned with problems in science. The major branches of mathematics were developed to solve scientific problems. In past centuries mathematicians looked for problems that came from the scientific world and from real situations. In this century though a lot of mathematical research is independent of science; this is not for everyone because it does not involve reality.

Students that liked math in their high school and college years expect math to be quite exciting at the graduate level. If they are only presented with dull material and no applications are shown they might feel that math is just an intellectual game with no real life meaning. They also face the dilemma of whether or not to follow a specific area of math for their research.

Good teaching takes many forms. A poor lecturer suddenly is a wonderful teacher if he or she is willing to share some of the exciting research findings with the students. Curiosity can be very inspiring to some people. Students need to feel the thrill of discovery, the thrill of accomplishment that keeps the professor going on with the research. Actually, this whole idea of sharing the excitement is very critical for the retention of math graduate students. The following cases provide an example of how young people can be motivated by real life problems. Stimulating students' curiosity is one of the best teaching techniques that one can use. Professors could easily communicate their enthusiasm to their graduate students because their research is so dear to them. This is one way to resolve the conflict between research and teaching.

CASES FROM THE THEORY OF INVERSE PROBLEMS

The cases that follow deal only with one area of applied math and involve several researchers from all over the world.

The study of inverse problems is a relatively new area of mathematical research, officially having its origins in the mid-1960's. According to Keller [3], we call two problems inverse to each other if the formulation of each of them requires full or partial knowledge of the other. Usually, one of the problems has been studied earlier, sometimes in more detail. This one is called the *direct* problem, whereas the other is the *inverse* problem. Actually, more than two thousand years ago, in book VII of his Republic, Plato posed essentially the same problem in his allegory of the cave, where he considered the philosophical implications of reconstructing "reality" from observations of shadows cast upon a wall, [2].

Several years ago the success of radar and sonar, during the second World War, made scientists wonder if they can see more than just a "dot" in their radar screens. In simple words, they just wanted to distinguish between a balloon and an enemy airplane. In recent years, the US AIR FORCE has sponsored research in the area of inverse problems in terms of multi-million dollar grants. One of them was awarded to the University of Delaware (MURI Grant) through the Center for the Mathematics of Waves, in July, 1996, and under the direction of Ralph E. Kleinman as Principal Investigator.

The following lines give a brief outline of the efforts made by the above group of researchers, in order to give to the reader an idea of what is going on, nowadays, in the area of inverse problems, and at the same time to motivate students to consider mathematics an interesting and useful subject.

We begin our presentation by introducing some terminology. A *wave* is a disturbance, usually periodic, that travels with finite velocity through a medium. Sound waves, elastic waves (waves that cause earthquakes), electromagnetic waves are some examples. All wave motions have two important characteristics in common: First energy is propagated to distant points and, second, the disturbance travels through the medium without giving the medium as a whole any permanent displacement. Each successive particle of the medium performs a motion similar to its predecessor's but later in time, and returns to its origin [1].

FIGURE 1
THE PROBLEM SETUP

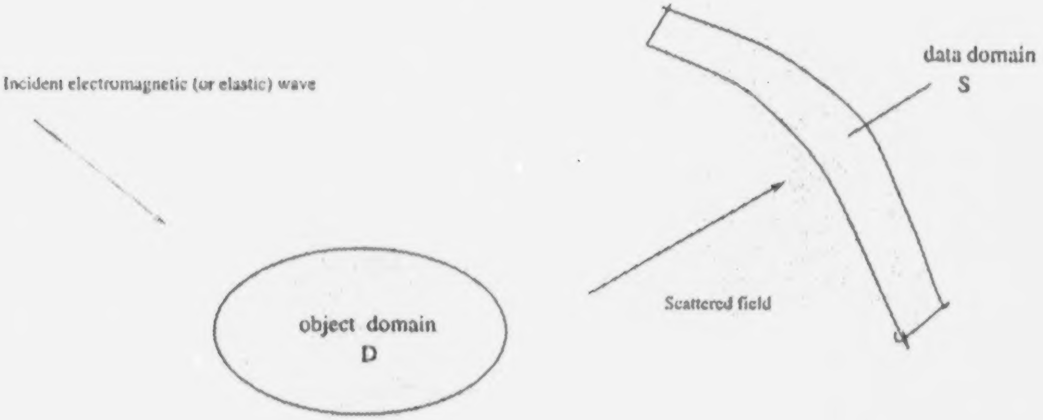
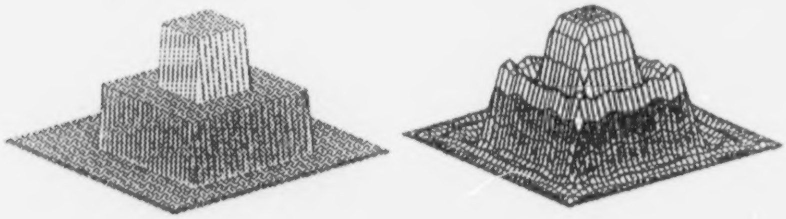


FIGURE 2

Reconstruction of an inhomogeneous square cylinder (left) from elastic waive incidence (right).



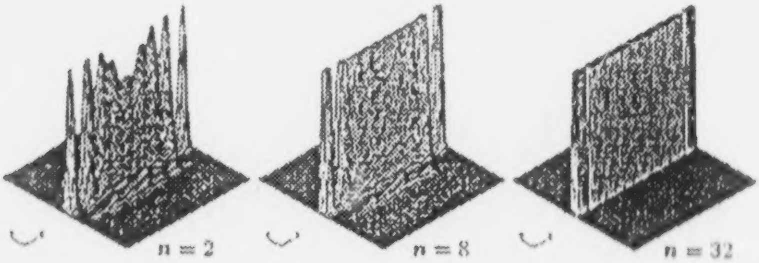
Assume that we "excite" an object by an elastic or an electromagnetic wave, but we do not know the shape of that particular object since it can be hidden or we are simply to faraway from it. As soon as the wave will "hit" the surface of the object it will "scatter" around and will create the so called *scattered* field. The inverse problem now is from measurements of that *scattered* field (data), to be able to reconstruct the object, as it is shown in Figure 1.

A very simple application from real life other than radar could be in medicine. The latest high-tech medical imaging devices are essentially inverse problem solvers; they are actually reconstruct two dimensional or three dimensional objects, allowing doctors to detect the size and the location of a tumor in the human body without performing surgery. It should be pointed out however, that reconstructing an object from measurements of the scattered field involves some "heavy" mathematics and sometimes extended computational time.

We continue our discussion by presenting two examples funded by the US Air Force concerning propagation of elastic and electromagnetic waves. It is important to mention that for both cases the inverse algorithm used, is essentially the same. Consider an elastic wave "hitting" a square cylinder (scatterer) shown on the left of figure 2, which consists of two different materials (inhomogeneous). Pretending that we do not know its shape (in real life we won't know its shape) we obtain, (after applying the appropriate inverse algorithm) the object shown in figure 2 (right), and which is actually very "similar" to the original. The interested reader can find more details about this problem in [4].

The previous tests however, were performed with synthetic, i.e. computer simulated, scattering experiments and thus it was possible that they were tainted by an "inverse crime" of somehow using knowledge of the scatterer to favorably influence the reconstruction. To guarantee innocence of this "inverse crime", the inversion algorithm was tested using "real", experimental, data generated by incident electromagnetic waves, at the Ipswich test site of Rome Laboratory, Hanscom Air Force Base [5]. The scatterer (mystery object) was known to be symmetric about the x and y axes and lie inside a circle of radius .060 m, but was otherwise unspecified. The results of the reconstruction are presented in the figure above which shows that the mystery object was a strip of about a width of 12 cm and a thickness of less than or equal to 4 mm, which indeed was turned out to be very accurate.

FIGURE 3
RECONSTRUCTION OF THE MYSTERY OBJECT



It is worthwhile to mention that in the above description we have tried to only touch the surface of inverse problems and present some of the accomplishments of just one research group in the field. We believe that we have succeeded to convey some of the beauty of the theory that keeps researchers busy all over the world. The ultimate goal however was to show people outside of the field of mathematics, what actually "mathematicians do," and how their work can find applications in real life.

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CASE STUDY IN TEACHING THE LANGUAGE OF FIRST-ORDER LOGIC

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Abstract

The language of first-order logic (FOL) is used extensively in mathematics, computer science, philosophy, and other symbolic sciences. Its precision and lack of ambiguity are essential to the study of reasoning and rationality. This paper discusses two cases that are used in a symbolic logic classroom to demonstrate the difference between the language of first-order logic and English as well as the power of the language of first-order logic in deduction and in analysis of inconsistent theories. The first case is about the debate among mathematicians over the current calculus reform. The second case discusses a mistake made by a famous mathematician in history and the development of a new branch of mathematics from the effort of fixing the problem.

INTRODUCTION

In a symbolic logic course, students study the principles of rationality and the techniques by which they can distinguish valid argumentation from invalid argumentation. They learn what makes one claim follows from accepted premises while some other claim does not. The tool that is crucial for students' success in logic is the language of first-order logic, known as FOL. FOL is not spoken, but it is used every day by mathematicians, computer scientists, philosophers, linguists, and practitioners of artificial intelligence. FOL consists of names, predicates, connectives and quantifiers, and every sentence in FOL is either true or false. The absolute clarity, rigor, and lack of ambiguity are exactly what one needs in distinguishing valid argumentation from invalid one. On the other hand, being absolutely clear and ambiguity free also makes FOL an awkwardly inconvenient language. In [1] and [2] I discussed how computer simulation and visualization could help students learn FOL. Here I will present two case studies that I have used in a symbolic logic classroom to demonstrate the important functions of FOL and the indispensable role played by FOL in mathematical reasoning.

Students in a symbolic logic course, especially at the beginning of the course, often question the necessity of learning such an artificial and inconvenient language. FOL's rigid grammar makes a simple sentence in English long and complicated. It seems to them meaningless to make a statement in FOL while they can easily do so in English. In addition, the practice of translation between FOL and English gives students the impression that there is a one-to-one correspondence between English and FOL. They wonder why one needs to use an artificial language with restricted rules when it does not seem to offer more than what English does?

To address the issue, I believe it is important to demonstrate not only the irreplaceable power of FOL in reasoning and deduction, but also the failure of our spoken language in rigorous reasoning. In the mean time, I also show students that the rigid grammar of FOL is the price it pays for being precise. I presented two cases in my logic course in achieving the above goal. The first case is introduced at the beginning of the course, and it is an on-going debate between two accomplished and respected mathematicians over the calculus reform movement, in particular, their debate over whether or not to replace the FOL description of a concept in calculus. Students, being familiar with the background of the debate (calculus reform) and the focus of the debate (the definition of a continuous function), immediately join the debate themselves. They all have strong opinions on calculus reform just as mathematicians from both sides of the debate do. The discussion allows them to reach a common understanding of FOL's role in rigorous reasoning, though they will not reach an agreement on calculus reform. The second case is introduced after students have learned FOL. We use FOL to describe and to analyze a mistake made by Cantor, one of the greatest mathematicians in history, when he developed set theory. The mistake, at the turn of last century, shook the foundation of mathematics, and the effort of fixing the problem has brought the birth of modern set theory.

CASE 1: THE DEBATE BETWEEN MAC LANE AND MUMFORD OVER THE CALCULUS REFORM

The Background

Calculus is usually the first college level mathematics course for students in engineering, science, and business. The failing rate of first year's calculus has been high. In response to the call for change, the calculus reform movement came in 1980's along with the introduction of technology into math classroom. The Harvard Consortium has been one of the leading groups among the calculus reformers. They believe that every concept should be taught numerically, graphically, and algebraically. The calculus textbook [4] written by Gleason and Hallett, known as "Harvard Calculus" in the mathematical community, and many other reform textbooks have been published. Among other new ideas, Gleason and Hallett's text replaces some FOL description of calculus concepts with more visual and sometimes less rigorous language and provides more visual approaches and applications.

Many are enthusiastic about the Gleason and Hallett text praising that it has succeeded in bringing calculus to millions of people who would otherwise balk at the abstract description of calculus concepts. Others, believing that rigorous description and analysis has been missing from the book, are firmly against it. Many college mathematics departments in the nation have been divided into supporters and critics of the reform movement. Articles pro and con reform could be found in every mathematics education journal, and "Letters to the Editor" column in some mathematics magazine has become a popular place for debate. The case I present to students is the debate between two well-known mathematicians Saunders Mac Lane from University of Chicago and David Mumford from Brown University over the definition of a continuous function adopted by Gleason and Hallett text. The purpose of introducing this case is not to take sides in the debate (although students have their strong opinions on both sides of the debate) but to demonstrate the power and inconvenience of FOL in rigorous reasoning as well as the difference between FOL and our spoken language: FOL is the only language that is precise and absolutely clear, and our spoken language is rich, subtle, and sometimes ambiguous.

The Case

David Mumford is an advocate of the calculus reform, and he has in many occasions voiced his enthusiasm for the Gleason-Hallett reform text. Saunders Mac Lane, on the other hand, is very vocal in criticizing reform. In 1997, articles and letters by Mumford and Mac Lane on calculus reform were among the many that appeared in the Notice of AMS, a monthly publication of American Mathematical Society. The definition of a continuous function is one of the issues that they discussed. A continuous function, roughly speaking, is the one whose graph is a continuous curve with no holes and no jumps. The traditional FOL description also known as the ε-δ definition is as follows:

Definition A. *A function f(x) is continuous at* **a** *if* $\forall \varepsilon>0\ \exists\delta>0\ (|x-\mathbf{a}|<\delta \cdot |f(x)-f(\mathbf{a})|<\varepsilon)$

This definition says that f(x) is continuous at **a** if for every positive number ε, there is a positive number δ, such that if $|x-\mathbf{a}|<\delta$ then $|f(x)-f(\mathbf{a})|<\varepsilon$. It basically means that f(x) is continuous at **a** if one can make f(x) as close as desired to f(**a**) by letting x get infinitely close to **a**. The abstract FOL description of continuous function indeed seems to make an easy and visual concept hard to understand. The Gleason-

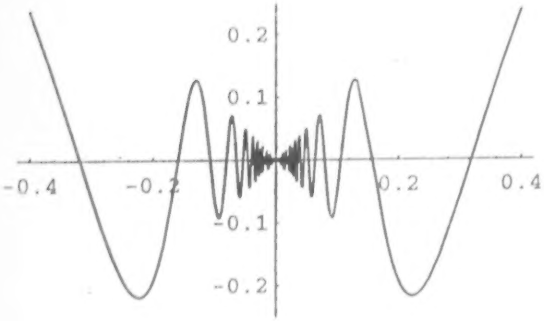
Hallett text replaces the ε-δ definition with the following:
Definition B. *A function f(x) is continuous at* ***a*** *if the closer x gets to* ***a****, the closer f(x) gets to f(****a****).*

The visual appeal and the simplicity of Definition B is obvious. However, Mac Lane and others pointed out that Definition B was not equivalent to Definition A, and hence was incorrect. Mac Lane provided the following counter example to refute Definition B:

Example:

$$f(x) = \begin{cases} x \sin \frac{1}{x}, & \text{if } x \neq 0; \\ 0, & \text{if } x = 0. \end{cases}$$

Graph:

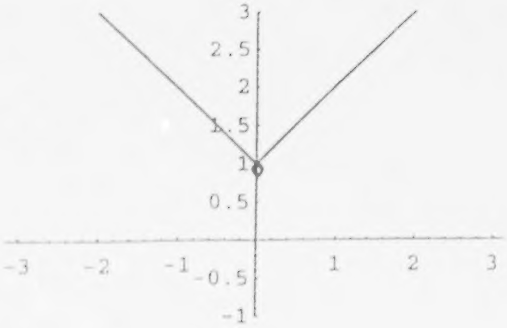


This function is continuous at **a**=0. However, because the graph of f(x) is oscillatory as shown in the picture, it does not satisfy the requirement in Definition B that "the closer x gets to 0, the closer f(x) gets to f(0)." In other words, this example shows that the Definition B fails to describe all continuous functions because of the ambiguous meaning of the phrase "the closer . . . the closer". Mac Lane used it to demonstrate that FOL description could not be easily replaced. Mumford responded Mac Lane's criticism in his article "Calculus reform for the millions" [5]. He argued that most people did not learn a new concept most efficiently by being exposed to abstract definitions and that "virtually the only sentences in English with an unambiguous interpretation are those written in mathematical jargon." (Mumford and Mac Lane actually agreed about the difference between English and FOL when they argued about their virtues!) Mumford then proposed a revised version of Definition B by adding a footnote that "f(x) needs not go straight to f(**a**)." He recognized the ambiguity meaning of "the closer . . . the closer" phrase by saying that "the problem here is that English syntax is notoriously ambiguous in common usage," and he believed that Definition B would help demystify the concept of intuitive mathematics concepts such as a continuous function and that the visual description would help bring calculus to millions of people. Mac Lane then provided a second counter example to refute the revised Definition B in his letter to editors of the Notice of American Mathematical Society [6].

Example:

$$f(x) = \begin{cases} |x| + 1, & \text{if } x \neq 0; \\ 0, & \text{if } x = 0. \end{cases}$$

Graph:



This function is not continuous at **a**=0 because it has a hole at 0. However, it satisfies Definition B: the closer x gets to 0, the closer (but never close enough!) f(x) gets to f(0). The example shows that Definition B fails to describe continuous functions. Mac Lane's two examples have demonstrated that ε-δ definition, or the FOL description of a continuous function, cannot be replaced with other descriptions without losing its rigor. Mumford, on the other hand, has demonstrated that the abstract FOL description hinders students from understanding mathematics concepts and presented the benefit in replacing FOL with more intuitive descriptions.

The Assignment and Discussion

Students were first asked to read the articles and letters from Mumford, Mac Lane and other mathematicians. They were asked to explain why Mac Lane's two examples refuted Definition B and the revised version of Definition B. At this point, students all had their own opinions on whether or not it was advisable to adopt Definition B. They were divided into supporters of Mumford and those of Mac Lane. The Mumford supporters were then asked if they could mend Definition B again to make it work, and Mac Lane supporters were asked to find counter examples to refute the newer version of Definition B. Eventually, their definitions became very close. I did not expect two sides of the debate to reach an agreement, which was not the goal of this case study. What students achieved was the understanding of the fundamental difference between two languages. They not only understood the function of FOL and its unique feature that couldn't be found in any other spoken language but also understood the reason that people found FOL difficult and the demand to replace it. Although symbolic logic studies and uses FOL, I do not exaggerate the power of FOL, nor do I encourage the use of FOL in the areas where is not necessary.

CASE 2: THE PARADOXES OF CANTOR'S SET THEORY

This case concerns an inconsistent axiom of set theory. An axiom is inconsistent means that we could prove a contradiction from the axiom. Set theory was first studied extensively in the nineteenth century by Georg Cantor, one of the greatest mathematicians in history. Set theory has some very intuitive concepts and has been used in every branch of mathematics. Its basic concepts are so easy that students with high school level mathematics knowledge could understand them. When the inconsistency or the paradox of Cantor's set theory (also known as Cantor's paradox) was discovered, it shook the foundation of the theory. As an application of FOL, I use FOL to describe and to analyze Cantor's paradox and to introduce the modern set theory in which the paradox has been fixed.

Intuitively, a set is just a collection of objects, such as a set of chairs, a set of sentences, or a set of numbers. The objects in the collection are said to be members of the set. We write $a \in A$ and read "a is a member of set A." There are two principles that capture Cantor's conception of a set. One is that a set is completely determined by its members. If we know the members of a set, then we know everything there is to know about the identity of the set. This principle is captured by the Axiom of Extensionalty. State more precisely, the Axiom of Extensionality claims that if two sets have the same members, then they are the same sets. The Axiom of Extensionality can be expressed in FOL as follows: $\forall A \forall B(\forall x(x \in A \leftrightarrow x \in B) \rightarrow A=B)$. The second principle behind Cantor's set theory is the so called Unrestricted Comprehension Axiom. It states, roughly, that every property determines a set. That is, given a property, say being an integer greater than two and less than five, there is a set containing all objects that have this property, i.e., the set with members integer three and four. This axiom can be written as $\exists A \forall x(x \in A \leftrightarrow P(x))$, where P(x) is any property. From this axiom, we can define the universal set U that contains all objects x such as $x=x$. The universal set is a set that contains every object. Then we introduce the notion of a subset and that of the power set. Set A is a subset of B if every member of A is also a member of B. The power set P(A) of A contains all subsets of A. We can prove that P(A) always has more members than that of A, hence we could prove the following theorem:

Theorem 1. For any set A, it is not the case that power set P(A) is a subset of A.

At the same time, we could prove that

Theorem 2. There exists a set A such that power set P(A) is a subset of A.

The conclusion of Theorem 2 seems impossible since we prove that P(A) always has more members than A. But universal set indeed satisfies the requirement of Theorem 2. Universal set contains everything hence it has every set as subset. In particular, the power set of universal set is a subset of universal set. What we have proven in Theorem 1 and Theorem 2 is a contradiction. We have shown that the power set of universal set both is and is not a subset of universal set.

It is impossible to overdramatize the impact this paradox had on mathematics at the turn of the last century. It shook the subject to its foundation. It is just as if in arithmetic we discovered a proof that $1+1=2$ and $1+1\neq2$! Or as if in geometry we could prove the area of a square both is and is not the square of its side. But here we are just in that position. This shows that there is something wrong with our starting assumption of the whole set theory, the two axioms with which we began. There simply is no set which satisfies these assumptions. The paradox is just the tip of an iceberg of problematic results of Cantor's theory. These paradoxes resulted in a wide-ranging attempt to clarify the notion of a set, so that a consistent conception could be found to use in mathematics. There is no single conception which has completely worn out in this effort, but all agree on one thing. The problem with Cantor's set theory is that it is too uncritical in its acceptance of "large" collections, like the universal set used in the proof of Theorem 2. Our analysis shows that there could be no such set.

At this point, students are shocked. In spite of the discovery of Cantor's inconsistent theory a century ago, Cantor's theory is still taught today at lower level mathematics courses where the inconsistency does not affect its application. Every student in my logic course had studied Cantor's set theory, and they all took the existence of universal set for granted. With the help of FOL, they for the first time have realized that the set theory they learned earlier is inconsistent, and the assumption of universal set has brought fundamental problems to the theory. Being familiar with Cantor's many great contributions to mathematics in a variety of areas, students are also surprised to learn that Cantor made such a mistake. FOL shows students that Cantor's intuitive notion of a set is simply inconsistent, and we must go back and rethink the assumption on which the theory rests.

Which of our two assumptions got us into trouble, Axiom of Extensionality or the Axiom of Comprehension? After we examine the paradox closely, we see that it is actually a straightforward refutation of the Axiom of Comprehension. It shows that there is no set determined by the property $x=x$. Now we raise the question: how can we modify the Comprehension Axiom so as to keep its correct consequence but also to rule out those "large" collections. First we modify the axiom so that we can only form subsets of previously given sets. The idea is that if a set A is not too large then neither is any subset of it. The new axiom is called the Axiom of Separation. The FOL description helps students understand the difference between the Axiom of Comprehension and the Axiom of Separation. The Axiom of Separation clearly blocks us from making universal set, the set that contains every object. However, our further analysis reveals that the Axiom of Separation is far too restricted. It not only blocks the formation of universal set but also blocks some of the legitimate uses we made of the Axiom of Comprehension. For example, it blocks the proof that the union of sets exists. Similarly it blocks the proof that the power set of any set exists. Without the union of sets and power set, the set theory would lose its vitality and application. Clearly Axiom of Separation does not give us what we need for set theory. The effort to eliminate "large" sets and to keep the correct consequence of Cantor's set theory leads to the development of modern set theory. The most common form of modern axiomatic set theory is known as Zemelo-Frankel set theory, also known as ZF. ZF modern set theory is obtained from Cantor's inconsistent theory by weakening the Axiom of Comprehension to Axiom of Separation, and then throwing back all the instances of Axiom of Comprehension that are true, when we restrict attention to collections that are not too large to be sets. In other words, we must put back in those instances that got inadvertently thrown out. As a result, ZF set theory is based on eight axioms. A first-time learner would wonder the purpose and the necessity of these axioms. To my symbolic logic students, however, ZF's axioms are natural steps to fix Cantor's inconsistent theory while keeping its valid parts.

This interesting case on the development of Cantor's set theory (also known as naive set theory) and modern ZF set theory covers a long period in the history of mathematics. The introduction and discussion of this case take about two weeks because of the technical background required for students to understand Cantor's paradox and the more general Russell's paradox. Navigated by FOL, students travel back to history to experience the excitement, disappointment, and the achievement of great mathematicians. Through the process of this case study, they not only witness the birth of a new branch of mathematics but also become more fluent in FOL. Most importantly, they understand the crucial role FOL play in axiomatic theory of mathematics, and the consequence of inconsistent axioms. As a matter of fact, the emphasis on the axiomatic method in modern mathematics was greatly influenced by the discovery of the set-theoretic paradoxes. Cantor himself did not carefully formulate the principles which he took to be fundamental. It is only with hindsight, once the theory got into trouble, the people went back and gave a careful analysis of Cantor's assumption.

REMARKS

Although case study has been used in mathematics education to address the issue how students learn mathematics, it is rarely used in teaching mathematics concepts due to the rigorous and axiomatic nature of mathematics conceptions. Symbolic logic is fortunate to find quite a few suitable cases that teach the logic concepts and the language of first-order logic. Both cases presented above are interesting and thought provoking. Moreover, with its depth and the influence, the case study provides students with a rare opportunity that not only allows them to learn logic and FOL through using them but also demonstrates the fundamental importance of what they are learning. The impact of these studies on students could not be found in a traditional lecture.

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MEGA-FUN LEARNING FOR THE Y2K VENUE-II

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Abstract

"Fun is a basic genetic intruction for all higher animals because it is the way they learn…humans must learn all their lives and therefore, continue to play and look for fun well into old age". Control Theory, Wm. Glasser, M.D. [6]

Learning can be reinforced in many ways. We endorse Dr. Alfred Tomatis' statement that "listening is the road to learning," and are still meditating about his statement that "we read with our ears." But learning without play is difficult---grim and boring presentations may be the major failing of our educational system, and as training for persuasive communication skills.

Unorthdox ways currently used in colleges to augment persuasion and articulation ability of business school students is to use stand-up comedy (University of Chicago), song writing, storytelling and improvisation (Vanderbilt University-Owens), and for Shakespearean motivation for other management skills at the corporate executive level (Northrup-Grumman).

One novel learning way is by continual repetition through audio-visual media, where information is presented in as risk-/stress-free environment as possible. Suggestion, auto-suggestion and suggestology---have been used, for example, to compress three years of studying French into less than one year by total immersion of students into a close network of parents-teachers-environment-activities where, for example, only French is spoken. See Appendix A, Typical Lesson [French] Using Suggestology.

Another approach is to have abstract ideas in the sciences translated into physical learning aids, or robotic device, or toys----where the kernel of the analogies can be retained for comprehending differing situations, and for future metaphors. See Appendix B, Selman's MEDICASA Model---for Simulation Devices.

KEYWORDS: Innovative Learning Techniques, Simulation, Creative Learning Devices, Fun Learning, Learning while Playing, Silent Effect Learning.

INTRODUCTION

We are unilingual in a multilingual Babel culture, without translators, with continually changing rules of grammar---a new "Esperanto" without an unabridged dictionary for the many ambiguous, core meanings embedded within layers of our multi-cultural heritage, like the artichoke pattern in the old Hawaiian dictionary.

An intriguing aspect about fun-learning in the 21st Century is that we just do not have the time nor the capability nor the comic instincts to face the grim, unsolvable problems we have to learn to resolve today and tomorrow---to teach us something about ourselves and each other in the process, and give everyone a laughing start to real learning. Plato advised parents to avoid compulsion [that is, encourage spontaneity] and "Let your children's lessons take the form of play." Friedrich Froebel pointed to the fundamental importance of play in the child's development. Modern psychologists stress that educators should use the child's physical development as the instrument of his intellectual and moral training, paraphrasing Dewey---pupils learn by doing.

When we are both learning and having fun, long hours and hard work is tolerable---without fun, these tasks become drudgery. "Fun is such an integral part of our lives that most of us could not conceive of life without it," Glasser posits [6], "yet it can be as much in conflict with the other needs as they are with each other. It can be in conflict with survival, with belonging, with power. But when you have power, you also have more time for fun, so power can also be very supportive of this need. I believe that fun is the basic genetic instruction for all higher animals because it is the way they learn. Humans driven by complex psychological needs that are always in some conflict, must learn all their lives and therefore continue to play and look for fun well into old age. In fact, losing interest in looking for fun may be a sign of mental deterioration in older people."

American education, both as a learning system and a philosophy of learning-- is in a state of great controversy, as we enter Millennia-3. Seen as archaic, medieval, Wave-2 hold-outs by many futurists and change agents, as little institutional reform is being made by the establishment to enter the digital Wave-3[1] world of accelerated Super-Learning.

What most corporations want to see in their new-MBA hires is "someone who is articulate, persuasive and can read a balance sheet---in that order." Business schools have consistently turned out graduates who could read financial statements and do cabalistic statistical analysis---but that's all.

Having students become "Jerry Seinfelds for a day gives them valuable communication skills and increased confidence. If my students can handle a stand-up comedy routine, they can handle anything [12]."

At the University of Chicago, Director/Actor Bret Scott of the Second City acting troupe was assigned to coach graduate business students to improvise comedy routines. And earlier this year at Vanderbilt University in Nashville, TN, a business student stood before his classmates and delivered a five-minute stand-up routine "laced with self-deprecating humor."

The executives of Northrop Grumman's Electronic Sensors and Systems Sector are studying the strategy of war and competition through Shakespeare's plays. A company called Movers and Shakespeare offers leadership training and impromptu costumed play-acting in "drive-by Shakespeare" retreats. "You can talk about the 12 great qualities of leadership and two hours later the students will not remember what was on the list. You've got to draw people into a story, and I'm convinced that's what they remember and not the principles," concluded Professor Useem, Wharton School, Center for Leadership and Change.

Simultaneously, there is much interest in promising alternatives and innovations in education, exhibiting possibilities for new curricula and new instructional patterns---as well as a sharp break with traditional forms of college pedagogical programming, to "trick" students to think for themselves, and to perform serious inquiry into the various disciplines [8]. But, unfortunately, there is no quick-fix for having the agenda of educational reform accepted---to learn better, faster and become a self-motivated, articulate person, with a passion to help others. The alternative goal is speculated upon [13]:

> *What if it were possible to transfer information without the circuitous paths of present ways of teaching? What if a teacher could guide a student beyond the normal capacity of his/her mind by "broadcasting" over the student's defense mechanism of the normally unused 90% barrier of the brain?*

A technique that could break through the barrier in the mind that prevents using the major moiety of our intellectual capabilities would be revolutionary. We will here explore three areas of discoveries and inventions that have been around the fringes of the educational establishment for varying lengths of time, with the hidden agenda of the rooster who shows his favorite hen an ostrich egg---"It's not that I'm complaining, mind you. It's just that I'd like you to see what others are doing!"

COMMUNICATION SKILLS

New approaches to better communication skills has been tried at many universities for MBAs and other graduate students. Companies are also trying to improve the vision and leadership ability of their executives. Unorthodox ways used in colleges to augment persuasion and articulation ability in management schools is to use stand-up comedy (University of Chicago), song writing, storytelling and improvisation (Vanderbilt University, Owens Management Center), and for costumed Shakespearean acting to develop motivational management skills at the corporate executive level (Northrup- Grumman) temporal vision [15]."

Taking a cue from what today's employees want, companies are using fun and flash to attract the best talent, and doing whatever it takes to keep them happy [9]. Employees of *i*XL, Inc. (a company that provides Internet consulting to Fortune 1000 companies) work in a fun-room atmosphere, taking breaks to play Sega video games, shoot pool or play Foosball. The company's meeting spots include a Japanese Garden Room with soothing ceiling to floor waterfall, with a whiteboard hidden behind a silk screen; a '70s Room with adult- sized beanbags, a velcro wall, a beaded door curtain and flowered carpets illuminated by black light. Perks include "fully stocked fridges in the four kitchens, free soda fountains and coffee, gumball machines (you need your own change for these) and snacks."

As we approach Millennium-3, we think of alternate futures---some with "bad" terminal outcomes, like man becoming the victim of his own hubris. In another, man learns to control those forces shaping his existence---conscious of the way he is creating the future, more conducive to his new cosmic awareness, than the present. "We are all futurists without knowing it. We all construct the future by everything we think, feel and do, but we tend to do it unconsciously, with limited spatial and informational capability."

More and more we seem to be going back to the Montessori philosophy of "education of the senses," Or John Dewey's "learn by doing," or the Lockean model of the mind, which can only be filled by exposure to sensory stimuli and orderly experiences---the recombining and modification of these simple ideas transformed by cognitive mechanisms into complex ideas.

LEARNING AIDS AND DEVICES REDUX

Schools (and businesses) are struggling to find ways to educate and motivate their students (and employees) on various subjects, including persuasion, and the new technologies. Teacher-led instructor-led training is expensive and difficult to work out logistically. Interactive, contextual learning is required that is fast, multimedia based and stimulating. The Internet for schools (or company's intranets) may become the future generic medium for teaching, lecturing and demonstrating incremental yet continuing training. Learning aids, toys, robotic devices and simulation techniques will be explored for state-of- the-art reinforcement of ideas and concepts at this point in time.

One way to reinforce concepts--tactical as well as OR-type strategic problems---is to devise "hands-on" simulations and/or appropriate analogies. Models are classified in terms of the system being modeled; such as, continuous versus discrete, deterministic versus stochastic, physical versus mathematical. A further distinction is made between static and dynamic models. For mathematics, the split is between analytical and numerical models, analog and digital. Management games, workshops, retreats and/or training exercises illustrate the complex relationship between decision-making processes and new information technology and knowledge systems. Models are neither true nor false; their value is judged by the contribution they make to our understanding of the system or concept they represent [8].

The use of learning aids and simulation techniques has been explored by educators at various levels: Escalante (Garfield High School) uses a wind-up walking-shoes toy for a step-by-step approach to algebra, and a plastic monkey climbing up and down a small pole to illustrate the inverse function--exchanging y for x; Dr. David Carson (Rensselaer Polytechnic Institute) creates a level playing field for science and humanity majors using Tinkertoy blocks for his courses in technical writing and editing; Marva Collins (Chicago Westside Preparatory School) uses a number of original learning aids; Deirdre Donovan (Transit Tech, NY) uses visual play—cartoons, art prints, movie clips—to win "Special Education" converts to Shakespeare; Dr. Victor Selman (The American University) uses a multiplicity of original and modified high-tech toys and simulated electronic and robotic models to reinforce management concepts and OR-applications, enhancing their absorption in business, management and production. Selman will demonstrate his basic MEDICASA Model for business usage---Measurement, Efficacy, Data Development, Imagery and Integration, Computer-ization, Analysis, Sensitivity, and Applicability to Objective. Appendix B, Selman's MEDICASA Model, fleshes out and clarifies the mnemonic metaphor, permitting easy discovery of the kernel of wisdom inside each abstraction.

Another area worth mentioning is the body of research of the experimental psychologist Dr. Neal E. Miller, with regard to his discovery of "visceral learning" and the biofeedback mechanism, considering the Zen and Yoga approaches to the bodily phenomenon---breathing, blood pressure, sweating. Miller explores the possibilities that man can train and control not only his mind and the skeletal muscles, but the deepest visceral processes. "In a paradox worthy of the ancient Zen masters, biofeedback researchers have discovered that living organisms can modify many supposedly involuntary bodily functions if they are guided by external signals that tell them what is happening inside their bodies from moment to moment [7]."

When it comes to interpreting this discovery, scientists tend to divide into two camps: one group, drawing on communications theory, stresses the purely informational aspect of the feedback signals; the other group, drawing on behaviorist learning theory, stresses the role of the feedback signals in reinforcing appropriate responses [6]."

The basic principle of biofeedback training is perfectly compatible with the Western emphasis on achieving mastery over the external conditions of life: If you know the results of your past performance, you can improve your future performance. Parents and teachers apply this principle to their everyday life without thinking about it---a mixture of tentative knowledge and speculation. Union High School in Sacramento, California, has been using bio-feedback gadgetry to reduce student stress

Models—simulation or devices-- cannot replace the real world; at best, they can reduce a complex system to manageable patches---becoming virtual educational innovations [8]. At the current Tokyo Toy Fair the MIT Media Laboratory's Toys of Tomorrow Project [which has sponsors including Warner Bros. and Intel] made their debut with Media Technology Professor Michael Hawley's comment--"Toys aren't just for playing around---they are tools that can help us turn our dreams into reality." But the idea behind the MIT project is to use technology to create toys and devices that let users take more creative control; e.g., by programming a dancing robot, or composing music. The popular Furby doll can speak 800 words and phrases, and has more computational power than the lunar exploratory module (LEM).

SUGGESTOPEDIA, SOPHROLOGY & AUDIO-PSYCHO- PHONOLOGY

The goal cited supra is exactly what Dr. Georgi Lazanov believes he has created---a teaching method that speeds up learning 50 times, increases retention, requires virtually no effort on the part of the student, reaches retarded and brilliant students alike, and requires no special equipment. "You can lean back, relax, listen to music, and learn without effort and without realizing it. The possibilities of using suggestopedia on a mass scale are very promising [11]." At the Bulgarian Institute of Suggestology and Parapsychology, records of controlled tests reveal that hundreds of people from all levels of society learned entire two-year language courses in as little as twenty (20) days. Small experimental groups mastered courses in basic mathematics, physics, chemistry and biology in a matter of weeks! It is not hypnosis or sleep learning. It is far more practical than that. The student is fully awake and in complete control of himself, say Dr. Lazanov. It is a kind of mind contact between teacher and student, based on the Yoga technique of relaxation known as Savasanna. Using suggestion and auto-suggestion, muscle tension is relaxed and the brain is relieved of the usual activities and stresses. In this relaxed free state of consciousness or meditative state, fatigue quickly vanishes. Freed from all distractions which hamper its functioning, the brain resembles a sponge able to absorb knowledge of all kinds. "The possibilities of using Suggestopedia on a mass scale are very promising, "says Lazanov, adding, "It is inexpensive and ideally exportable [3]."

Bancroft in her persistent investigation of the Lazanov Language Method found out that the opening 74-beat music was slowed down to 60-beat music with precision data pacing on an eight-second cycle. She concluded that this must be part of the acoustical breakthrough that mobilizes the subconscious, harmonizes right and left brain, relaxes the body and alerts the mind and expands memory [2]. Slow Baroque music is the link to the subconscious. Also, the up-tempo high-frequency music [Mozart] serves as a backdrop to the dramatic reading of learning material, gives an energy boost to the cerebral cortex to help charge up and rebalance brain and body. After listening to high-frequency music for a certain time, research shows that the brain seemed to become harmonized, energized and sharpened---giving out the right signals to the rest of the system to re-vitalize the whole self.

The secret of this technique is that material does not reach the memory in the ordinary way, because the student does not participate consciously in the process [10]. With basic knowledge quickly and painlessly instilled, schools could increasingly become places of creative teaching and thinking. In Appendix A, A Typical Classroom [French] Lesson Using Suggestology, is demonstrated against a background of Brahms and Beethoven. During the time the teacher intones words against a musical background, there seems to be distinct physiological changes in the body and changed brain control of alpha waves, putting a predominately rhythm of rest in the brain. Once the mind is opened in this reverie-like state, Lazanov found that the capacity to remember seems almost boundless—there is no apparent cutoff point. It is as easy to remember a hundred words than fifty [6]!

Like Dr. Lazanov, Dr. Lozano Caycedo, also a medical doctor, at the University of Madrid, investigated techniques that permit a person to modify states of consciousness and thus act on the body/mind linkage. Founding the Centre of Sophrology in 1960 in Barcelona, he initially used sophrology medically in many areas, including gastroenterology, psychiatry, and obstetrics. Caycedo says. "We teach people how to breathe properly, how to anesthetize themselves and how to relax. We reinforce in a person his capacity to take charge, and thus his capacity for hope." From medicine, Sophrology moved to sports and education, where Caycedo observed that people developed hypermnesia--or super-memory—through Japanese Zen (which he considers a "perfection of Raja Yoga") and his own "dynamic relaxation" technique [3]."

Caycedo's system also used visualization exercises to achieve synchronization of body/mind rhythms, and sounds—not an orchestra like Lazanov—but by the human voice, "Left brain and right brain are stimulated globally by having the course material read almost in a singing way with special rhythms and intonation. This technique he calls terpnos logos, and it goes back to the ancient Greeks. [Plato described it as a special tone of voice---a soft, soothing, monotonous, melodious tone somewhat like an incantation.] Sophrology teachers are even given voice coaching along the lines of an actor or singer [3]."

Like Lazanov's Suggestology, Caycedo's Sophrology brings not only learning, but therapeutic spin-off benefits---improved self-confidence, improved creativity, improved emotional development and self-expression, and freedom of limited ideas about capabilities.

The Sound Therapy work of Dr. Alfred Tomatis[2] (Toma-teece), the Paris E.N.T. specialist who believes that "listening is the road to learning," as he works to restore the full physical response of the ear as well as the person's emotional receptivity to sound. High-frequency music has been documented to help overcome a wide range of learning disorders and related behavior problems, as well as dyslexia, attention deficit disorder, hyperactivity, autism, and Down's syndrome---also in stuttering, hearing problems, vertigo and tinnitus, insomnia. Studies [University of California at Irvine] have shown that Mozart music can raise IQ by focusing attention, enhance creativity, reduce stress and tension by moderating heartbeat, blood pressure, and body temperature.

"The Ear is not made only for hearing---the ear is designed to energize the brain and body. [14]" The modus operandi is that energy comes through the ears; Tomatis tracked Bach, Mozart, Gregorian chants and the singing of "OM' on his instruments, observing that the debilitating effects of stress come when the central gray nuclei brain cells run low on electrical potential, like rechargeable batteries, generating the brain's electricity, powering the brainwaves showing up on the EEG. "Not so," Tomatis says. Through the ear you can tap into the vast, natural supply of cosmic energy---which never has shortages. And that is where a major breakthrough occurs. The Electronic Ear, a device invented and patented by Tomatis, emits bursts of varied high/low frequency sounds, alternating from ear to ear and forcing the middleman muscles to shape up. Once they do, the inner ear is "opened" and high frequency hearing is restored. An "open ear" is the Open Sesame for power learning, as well as the key to turning around widespread, ever increasing, learning disabilities.

Sounds from 5,000 to 8,000 Hertz recharge "brain-batteries" most rapidly. The music richest in these ultrahigh frequency recharging sounds is Mozart. Tomatis also pinpointed frequencies that deplete mind/body: low frequency sounds, such as noise from traffic, airports, construction sites, also the low pounding sounds in rock music. Dr. Tomatis also discovered that children start the development of their listening and learning abilities in the womb during the 26th week--- awakening their mind. A comparison of the work of Dr. Caycedo and Lazanov has been made by Bancroft [3].

Recently, Braincluster Chordal Music has been commissioned and recorded by a World famous Hollywood Arranger/Conductor. A patent for Silent Effect[13] , or total silent mode subliminal impact, has been granted [*see* http;//silent.theshoppe.com/] for a music/mind/intelligence/learning technology experience.

SUMMARY

In the West, UNESCO and the Ford Foundation had expressed interest in the Lazanov approach, and the New York State Medical College had invited Dr. Lazanov to speak there [1969]. The senior author met Dr. Lazanov in New York City prior to his United Nations' visit, and was impressed by Lazanov's multi-media presentation, and the need for and potential of his rapid learning technique. Consensus at the time was quite positive [9]---that Lazanov's Suggestopedia was a genuine form of mind expansion. It is revolutionary---evolutionary, perhaps. Speculation was awesome---What powers, what talents will surge into being as more of the mind is freed?

A "hands-on" fun workshop (with many original learning aids) will be presented by Dr. Victor Selman, including a discussion/demonstration of his comprehensive MEDICASA Model for developing appropriate learning aids for various business subjects---quality control, linear programming, queuing, reliability, inventory theory, simulations (Monte Carlo), work measurements, etc. Learning aids are offered as the support metaphors in learning the complex concepts inherent in the real-life environment needed to go from traditional rote learning to actual deep "visceral" fun learning. Models cannot replace the real world; at best, they can reduce a complex system to manageable patches---serving to modify perception and concretize knowledge, becoming virtual real-world science innovations, without all the scientific jargon newspeak [7].

Fun-Learning aids are offered as the support structure in learning the complex concepts inherent in the real-life environment needed to go from traditional rote learning to actual deep "visceral" learning through the entertainment arts.

Navigating techniques through the Scylla and Charybdis of differing assumptions, we play with bold new fun ideas and innovative methods that can enhance education and learning today, and for the fuzzy, yet super-serious Y2K venues. Techniques presented are intended to enlighten, expand and change the learning eco-environment---helping to reduce the stress and other anxieties of the new digital Wave-3[1] world.

The serendipitous benefit is that the use of the entertainment arts, the simulation concept and the audio-visual approaches of suggestology/sophrology/visceral can be used in all disciplines---providing needed, rapid meta-fun learning techniques for the accelerating 21st Century venues. Oddly enough, the use of "sacred" sound in the form of repetitions, mantras, zikrs, and affirmations go far back, historically, to ancient neuro-physiological powers of chanting to reorganize the nervous system, and center consciousness---providing pathways to real learning by the deeper self.

ENDNOTES

1. See Alvin Toffler, The Third Wave, William Morrow: New York, 1980. The concept of waves is metaphoric, trying to explain the hidden code of rules, or principles, repeatedly running through all the activities of each civilization. Inherent in the concept is the starting time of each wave, the crest time of each wave, the time window or period of complete duration, and the speed. All human experiences, basic perceptions, definitions of the technological development are shaped by the social, political, and technological milieu in which they co-exist.
   Toffler's "First Wave" was agricultural civilization. The Second, industrial. The Third is the emerging structure grouped around the development, possession and transfer of high-tech knowledge---"software over steel." Future conflicts, Toffler states, will come because of the clash of these hierarchies in our trisected planet---e.g., as Wave-2 nations prepare to become Wave-3. "It has belatedly begun to dawn on people that industrial civilization is coming to an end. Today many use the term 'postmodern' to describe whatever it is that comes after modernity."

2. "Something outside of you charges up your battery cells and this something is sound, particularly high-frequency sound. The middlemen are your remarkable Corti cells. Arranged in rows, 24,600 long-stemmed cells dance in perfect precision to each sound, much like the Rockettes of Radio City Music Hall. The energy produced by this extraordinary dance flows to your brain and some of it also spills off through the vestibular branch of your auditory nerve and flashes to the muscles of your body. High frequency sound energizes your brain while at the same time, it releases muscle tension and balances the body in many other ways, even affecting your posture.
   "Tomatis states that you don't get the jolt of energy if you can't hear the high frequency sounds. One reason we start to feel worn out as we get older is that we can no longer hear the higher pitched sounds that could reenergize us [13].

3. The Silent Effect technology has high Fidelity music recorded audibly, and simultaneously recorded on the inaudible portions of the same CD or Tape on three inaudible special quadrature modulation carrier groups. The modulation technique is such that this silent music is cap[able of being silently induced into and demodulated by the brain's neural networks, subconsciously (U.S.patented). Except for the carrier frequencies involved, the system functions remarkably similar to that of your FM radio, except for some very important differences. The results can be clearly observed in the human brain on our one-of-a-kind, high dynamic gain and noise nulling EEG machine. And, just as with a docrtor's Ultrasound, a similar inaudible modulation is cleanly propagated cutaneously (via the skin) and via bone conduction and through the expectant mother's amniotic fluid "water sack" to the ears of the unborn child. This feature is carefully controlled to permit just the proper volume level to present the desired music and voices to the fetus without the need for any special equipment (such as belt-mounted loudspeakers, electronic aprons, etc.) No earphones or special speakers or transducers or any such devices are required---just your normal stereo system.
   Because the special inaudible music and/or data is recorded at a volume level much higher than that of audible music, when you turn the volume down just below the level of audibility, the silent music and/or data is still being strongly propagated. This permits you to play the music continuously and silently to your child while your child sleeps, for example, with total effectivity. The perfect silent music and learning system.
   The Silent Effect CDs and Tapes are, measurably, over 60 decibels (one million times) more powerful than any known programming technology and may, additionally and exclusively, be played in the total silent mode with complete and safe and proven effectivity. The actual signal strength is optimized for each particular application. The same CD or tape is also perfect for use with the unborn fetus, the small baby, the growing child and the adult!

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APPENDIX A
TYPICAL LESSON [FRENCH] USING SUGGESTOLOGY

In a typical classroom at the institute [suggestology & parapsychology], twelve people--students, housewives, laborers, professionals, old and young--relax in reclining chairs that resemble airplane seats. The room looks more like a lounge than a classroom. The lighting is subdued to enhance the calming effect. The group is listening to music, gentle soothing music. They look as if they were at a concert, completely wrapped up in the harmony of symphonic sounds. Against the background of Brahms or Beethoven, the voice of the mentor seems somewhat businesslike, or if ordering work to be done, sometimes soft and calming, then unexpectedly hard, commanding. Her voice repeats in a special rhythm, on a special scale of intonation, French word, idioms, and their translation. But the students are not really listening. They have been warned not to pay attention, not to think about whether they hear the teacher. Relax. Do not think about anything. Their conscious minds are to be totally occupied by the music.

The next day surprised students discover that even though they we sure they had learned nothing, they remember and can easily read, write and speak from 120 to 150 new words absorbed during the two-hour session. In the same way the toughest part of the language course, the grammar rules, painlessly take root in the minds of music-lulled students. Within a month students with no prior knowledge of a language have accepted two to three thousand vocabulary words and have a good grasp of the grammar. Longitudinal tests a year later show they still know all the material learned in this incredibly effortless way [6].

Classes run four hours a day: two hours for the suggestion session, one hour for the practice and tests, one hour for new material. Students come six days a week for three months. At the end of that time they have the equivalent of a two- or three-year course, a 6,000-word vocabulary, and a complete grasp of grammar. They can read, write and speak fluently.

[Tests a year later show students retained most of what they learned by Suggestology!]

APPENDIX B
SELMAN'S M-E-D-I-C-A-S-A MODEL

The **MEDICASA** Model is most effective for providing the necessary insights for further inventiveness, creativity and interdisciplinary usage, focusing on the development of learning aids for specific applications, and for preparing instructional goals and educational objectives [7].

- Measurement. This Quality Control Dilemma has students using micrometer calipers to measure thickness of foil-wrapped candy, and computing the Average, the Standard Deviation and the Distribution.
- Efficacy. This is the degree of higher-level integration of the unique concepts into the memory convolutions of the total brain.
- Data Development. Students plot data points for statistical control limits for samples of, say, five; and for the total expected mean and dispersion [Standard Deviation].
- Imagery & Integration. Three-dimensional learning aids are integrated into the learning process for enhanced visualization and retention.
- Computerization. Measured data, as well as estimated values, are fed into a graphical software package [1] for plotting statistical control limits and simulation experiments.
- Analysis. Comparisons are made of computer outputs with hand-calculations. For clarification, students perform data evaluation, forecasts, caveats, rationales for disparities---in a dynamic format.
- Sensitivity. Using simulation techniques, "what if?" questions are raised regarding basics.
- Applicability. Radiational aspects of lessons learned for application to other educational venues

NOTE: Abacus-type counters and Quincunx are demonstrated for concept integration. [Colored balls simulate defectives for control-limit charts.]

TERM 2 MBA PROGRAM DEVELOPMENT AND INTERACTIVE SIMULATION

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Abstract

The College of Management and Business at National-Louis University has made gigantic accomplishments with course offerings through the years. The MBA curriculum is one example of this success. This presentation will discuss the use of a simulation in the development of three courses in term two of the MBA Program at National-Louis University. In an effort to link together Managerial Economics, Macroeconomics, and International Business, an interactive decision-making simulation is being utilized across all three courses during this term. The use of this simulation actively engages students in strategic planning, effectively allocating resources, and coordinating the firm's activities to accomplish specified goals. This simulation encourages students to apply the economic concepts from the Managerial Economics course and the Macroeconomics course to the international business setting. The presentation will conclude with a demonstration of the simulation model in action.

KEYWORDS: MBA, Interactive Simulation, Microeconomics, Macroeconomics, International Business.

INTRODUCTION TO THE MBA PROGRAM

The MBA curriculum developed at National-Louis University consists of four terms. Below is a summary of the terms and the corresponding course offerings. Each course is three semester hours with the exception of the first course, Introduction to Graduate Studies, which is a 1-semester course.

Term I
MBA500 Introduction to Graduate Studies
MBA502 Organizational Behavior
MBA504 Human Resources Management
MBA506 Ethical and Legal Issues

Term 2
MBA508 Managerial Economics
MBA510 Macroeconomics
MBA512 International Management

Term 3
MBA514 Managerial Accounting

MBA516 Financial Markets
MBA518 Financial Management

Term 4
MBA520 Operations Management
MBA522 Strategic Marketing
MBA524 Strategic Management

This presentation will address the development of three courses for term two and the use of one interactive learning simulation across all three courses. My colleagues at National-Louis University and I co-authored these three courses. Dr. Ed Weiss and I developed the first two economics courses for this term. Ms. Ellen McMahon and I developed the International Business course. In an effort to link all three courses together for the term, an interactive decision-making simulation was utilized. This paper will begin with a general discussion of the three courses for term two. Additionally, the use of the international business management decision-making simulation to bridge the knowledge across all three course offerings is explained. In conclusion, a demonstration of the simulation in action is utilized to support the presentation.

TERM TWO COURSE OFFERING

Managerial Economics introduces the student to the application of microeconomic principles to managerial decision-making in the modern organization. Emphasis is placed on marginal analysis and resource allocation, as well as on computer-based forecasting and model building. A variety of managerial decision-making techniques are used in the analysis and solving of organizational problems.

Macroeconomics introduces the student to macroeconomic principles and how the fluctuations of economic public policy impact the behavior of individuals, organizations and governments. Issues addressed are business cycles, price fluctuations, employment issues, trade issues and growth, as well as international trade policy and the expanding global economy. A variety of managerial decision-making techniques are used in the analysis and solving of organizational problems.

International Management introduces the student to the operations of both national and international organizations in the expanding global economy. International issues addressed include balance-of-payments, exchange rates and trade barriers. Emphasis is placed on differences in foreign governments, cultures and organizational structures and how these differences impact the behavior of individuals, organizations and governments. Several specific countries and their business environments are also addressed. A variety of managerial decision-making techniques are used in analyzing and solving organizational problems.

INTERACTIVE SIMULATION

The International Business Management Decision-Making Simulation is first introduced during the Managerial Economics course. The purpose of this introduction is to let the students familiarize themselves with the microeconomic and macroeconomic inputs and outputs of the simulation and the actual simulation itself. The simulation also utilizes business planning for international operations. This helps the student to understand the importance of thorough and sound business planning in identifying international opportunities and threats. The students (in teams) are expected to formulate strategies, develop action plans, and address the financial requirements of such actions. The environment of the simulation affects the outcome of the decisions being made by the student teams. Teams are expected to manage their product in optimizing their company's performance. There are four products, representing four different industries available to the teams. Each team offers one product and all products operate under an Oligopoly market structure. Understanding the characteristics of an Oligopoly market structure (market structures are covered in Managerial Economics) is important when developing plans and making simulation entering decisions.

The simulation continues to be used in the Macroeconomics course as strategy planning and determination of simulation inputs becomes important. There are a total of 15 countries available for operations in Asia, Europe, and Latin America. The student teams must decide which country to enter, what the mode of entry will be, what type of financing to use, what plant capacity will be, what the production level will be, and what types of marketing will be used. The students are asked to develop a mission statement depicting a long-term, forward looking vision of what the company is trying to become, distinguishing itself from other competitors.

In order to decide the simulation input values, students are required to perform an environmental analysis. The student teams must perform a secondary research including both external sources and internal sources of information. This secondary data provides a means of gaining some initial awareness of the environment in a foreign country and of the problems that are likely to be encountered there. The information available from the simulation include the market research reports and an interactive grid of country attributes, including economic activity, political stability, socio-cultural trends, infrastructure, and currency stability factors. Students need to identify the most important environmental factors, try to understand those factors, determine their current levels (or affects), and forecast their influence. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) is performed to access the firm's position relative to its competitors. It is imperative the student understands the importance of gathering and analyzing information as a source of identifying opportunities and solving any business problems that may occur. This research is also used to evaluate the countries, analyze competitors, determine market potential, and identify consumer preferences. Students should be seeking information on the general business environment of each potential country to include but not limited to: the economy, the legal system, culture, technology, infrastructure. There are several reports student teams can purchase from the simulation. Note: These report purchases appear as an expense item in their financial statements so they should be used with caution.

- *GNP (Gross National Product) Level* - This is the market value of all final goods and services produced by a national economy for a given period of time (usually a year).
- *GNP (Gross National Product) Per Capita* - This ratio is total GNP divided by a country's population. GNP per capita is a measure of the general well being of the people in a country.
- *Inflation Rate* - This rate represents changes in the average price level of a country's goods and services.
- *Population Size* - These are total population numbers for a country over time.
- *Industry Average Firm Sales* - These are the average dollar value of goods sold at the trade level by competitors.
- *Industry Average Firm Profits* - These are the average dollar value of profits for competitors.
- *Industry Average Price/Unit* - This ratio shows unit price information indicating the average price of competitive products sold in a country when sold to the trade. *It is not* the price final customers pay for the product.

For each country, there are four research reports available for the students to examine. These reports provide the most useful information to the students. They offer data about consumer preferences, competitive activities, and market dynamics by country. As with other simulation reports, students must purchase these and they are expensed to the company.

- *Brand Preferences Report* - This is a two-page report containing survey information on brand preferences by demographic segment. This report shows estimated market shares for five major market brands (not the student team brands being used in this simulation). In addition, it has estimates of the proportion of buyers by age, social class, gender, household size, marital status, and presence of children. The report shows indices with a value of 100 being average and a value over 100 being above average. This report is used to examine brand preferences for major market brands by age, social class, gender, household size, marital status, and number of children in a household. This report is for planning the activities of student teams.
- *Product Attribute Preferences Report* - This report contains survey information on brand attribute preferences by demographic segment for five major market brands (not the student team brands being used in this simulation). This report has estimates by age, social class, gender, household size, marital status, and number of children in a household. This report helps in designing the

product the student team sells by showing target group preferences in terms of specific product attribute levels. This report is for planning the activities of student teams.

- *Distribution Channel Preferences Report* - This report contains survey information on distribution channel preferences by each of the demographic segments. Again, this report shows indexes with a value of 100 being average and a value over 100 being above average. This report shows where consumers prefer to shop. That information is used to establish distribution allocations in the student plan. This report is for planning the activities of student teams.
- *Market Audit Report* - This report contains channel and media auditing information on unit sales, market share, average price per unit, unit sales by distribution channel, and promotion dollars by media type. This data is reported for five major market brands (not the student team brands being used in this simulation). This report helps students in determining what their promotion budgets should be and how they should be allocated. This report is for planning the activities of student teams.

As mentioned previously, there are several input decisions that must be made by the students. Student teams must select a country or countries in which to sell. This selection should be based on information they have gathered independently as well as the information available from the simulation. Students must make a separate mode of entry decision for each of the countries in which they decide to sell their product. Three modes of entry are possible and include export, joint venture, or manufacturing. A method of financing operations for each of the countries in which the students are doing business must be decided. There are three options: Bonds, Loans, and Stocks. Using bonds versus loans versus stocks are just different ways of financing business operations. Students must select a production capacity for each country in which they operate. Plant capacity options vary from country to country and product to product. Plant capacity determines how much of a product can be produced for sale during any period. With excess capacity, there are expenses associated with underutilization; and with insufficient capacity, a team will not be able to produce enough to meet market demand. The marketing decision is multifaceted. It includes determining the target market, the product attributes, the pricing decisions, the place of sale, and the promotion efforts. Once the input decisions are made, students are prepared to run the first iteration of the simulation. The output from the simulation provides forecasts to each of the student teams.

The International Management course provides students the opportunity to continue with the simulation and make changes to their inputs as multiple iterations are simulated. As the students acquire additional information during the course, they make better decisions for their company.

SUMMARY

The third term of the MBA program at National-Louis University is unusual in its development. Instead of only offering courses in microeconomics, macroeconomics, and international business, this term offers students the opportunity to utilize the knowledge acquired in the courses and apply this knowledge to an international management decision-making simulation. The students plan, research, and actively participate in operating an international organization and all the business decisions that go along with such an adventure.

One last note. The success of utilizing one simulation across three courses has its challenges. All instructors for theses three courses, unless there is one instructor for all three, (which rarely occurs,) must know the simulation inside and out. This creates a tremendous amount of work for the instructor. In addition, there is a greater need for the three instructors across the term to be in communication with each other regarding the use of the simulation and the student teams. All in all, the International Business Management Decision-Making Simulation is an excellent enhancement to the third term MBA program at National-Louis University.

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THE POWER OF QUESTIONS IN SECOND LANGUAGE CASE DISCUSSIONS

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Abstract

This paper focuses on the questioning techniques used by an American case leader in an English-medium management course in Hong Kong. Using a typology of questions adapted from Christensen (1991] and Long and Sato [1983], the lecturer's questions and student responses in the Swatch case discussion were coded and analyzed. After reviewing the videotape, transcript, and field notes of the discussion, interviews were held with the case leader and a sampling of students to better understand the cultural learning situation. This paper offers pedagogical suggestions for case leaders who seek to promote and sustain student participation in second language contexts.

KEYWORDS: case methods, discussion-based pedagogy, questioning, second language contexts, business, Asian students, intercultural communication

INTRODUCTION

"Teachers who treat questioning, listening, and responding as skills to master with reasoned care also gain the ability to influence aspects of the discussion process - mood, tone, pace, culture, and abstraction level- that otherwise seem untouchable" Christensen [1991: 153].

Most guidebooks for case leaders focus on first-language contexts where the case leader shares the same language as the majority of his or her students. There is scant information available for the growing numbers of case leaders who find themselves teaching in a second language context. My research is an attempt to provide useful pedagogical information for case leaders who would like to improve their communication with students who are non-native speakers of English. This paper focuses on the impact of questions on the participation of Asian students in case discussions that take place in English, their second language.

RATIONALE FOR STUDY

In contexts where students and lecturers share the same language and cultural backgrounds, a common set of assumptions and experiences facilitates the communication process. In situations where lecturers are teaching in foreign countries, the possibility of miscommunication naturally increases. At a bilingual (Chinese-English) university in Hong Kong, I have been investigating the use of case methods in business administration courses to better understand the communication difficulties in this cultural setting. My study has followed an ethnographic approach, drawing on both quantitative and qualitative data to develop a detailed description of the case-based learning situation [Atkinson 1994;

Hammersley and Atkinson 1983; van Lier 1988; Watson-Gegeo 1988]. This "explanatory, interpretative" account [Geertz 1973] has considered the values, roles, assumptions, attitudes, and patterns of behavior of the participants. It has helped me to better understand the ways the lecturers and their students interact with each other and the case material [Jackson 1999a, forthcoming].

In this paper I take a closer look at the interaction in one of the strategic management courses under study. Specifically, I focus on the questions and responses in the Swatch case discussion that took place near the end of the course. By examining the experience of an expatriate lecturer in Hong Kong and his Chinese students, I hope that the findings will be of interest to lecturers who are leading case discussions in second language settings or to those who are teaching Asian students in English-speaking countries.

RESEARCH QUESTIONS:

The aims of this phase of my study were formulated through the following questions:

1. During which phase of the discussion does the lecturer ask the most questions?
2. What length/type/ pattern of questions does the lecturer use most frequently?
3. What are the reactions/ responses of the students to his questions?
4. What conditions seem to enhance or detract from the students' willingness to actively participate in the case discussion?
5. What are the pedagogical implications for case leaders to promote and sustain the involvement of Asian students in case discussions?

METHODOLOGY

The study presented in this paper is drawn from a larger body of data collected over more than three years, and with a larger number of lecturers and Chinese students at the same university in Hong Kong [Jackson 1998, 1999a, 1999b, 199c]. This phase of my study targeted an undergraduate case-based management course, *Business Policy and Strategy*, which is compulsory for final-year business administration/ accounting students.

RESEARCH INSTRUMENTS/PROCEDURES

Throughout a 14-week semester, data collection about the case-based learning situation in this English-medium management course consisted of:

- "The use of cases in business administration courses at CUHK," a 77-item questionnaire for the business lecturer adapted from instruments developed by Anderson and Lawton [1993] and Miles, Biggs and Schubert [1986]. It employed a six-point Likert scale for closed questions and included a shorter questionnaire about the use of cases in his course, *Business Policy and Strategy;*
- "Learning through business cases," a 91-item questionnaire for the students to determine their views about this mode of learning. Like the lecturers' questionnaire, this instrument was adapted from earlier ones by Anderson and Lawton [1993] and Miles et al. [1986];
- several semi-structured interviews as well as informal discussions with the American business lecturer before and after the course to gain a more in-depth understanding of his perceptions about case-based learning in his management course as well as in business administration courses in general;
- semi-structured interviews in Cantonese with five Chinese students in the course (2 males and 3 females, representing a range of behavior in the case discussions) to gather their views about case-based learning in their management course;
- a semi-structured interview in English with the sole international exchange student in the class, an American male who is a native speaker of English;
- observation of eight hour-long case discussions in the strategic management class;

- field notes describing less formal discussion with and observation of the lecturer and his students;
- video-recordings and transcriptions of eight case discussions (two cameras were used with one camera focused on the lecturer and the other one on the students to capture as much of the interaction as possible);
- a lexical analysis of all of the case readings/ discussions using Wordsmith Tools;
- other artifacts of the case-learning situation, such as seating chart, textbook [Wright, Kroll and Parnell 1996], handouts, and course syllabus.

In preparation for the analysis of the questions and responses in the Swatch case discussion, I reviewed the literature on questions and discovered that little research has delved into the art of questioning in case discussions. In fact, most advice to novice case leaders is based on anecdotes and intuition rather than research.

To facilitate the categorization of the lecturer's questions, I reviewed several inventories of questions and found the work of Christensen [1991] the most useful as his typology was developed specifically for use in corporate strategy courses. I modified his typology, adding additional categories of particular relevance to second language contexts [Long and Sato, 1983]. For example, in interviews with the Chinese students, several noted that they had difficulty understanding cases because of the unfamiliar cultural content. I was, therefore, interested to learn if the lecturer used any explicit comprehension checks. Table 1 shows the typology I used, along with examples drawn from my database of more than twenty transcripts of case discussions in business in this context.

TABLE 1
TYPOLOGY OF QUESTIONS IN CASE DISCUSSIONS

Diagnostic questions:	"What do you think is the main problem the hotel is facing?" "What would you say are the problems or threats from the environment or perhaps some weaknesses of Apple?"
Information-seeking questions:	"In Hong Kong does every hotel have a coffee shop or restaurant?" "What is their profitability in dollars?"
Opinion-seeking Questions:	"What do you feel about that? Any opinions on that?"
Challenge (testing) questions:	"Why should they - now wait! Why should they divest? Why - why would you want to get rid of them?" "Why do you think Apple is having problems with its differentiation strategy?"
Action questions:	"Okay. What do you recommend this guy to do? What is your solution? What do you tell the poor guy to do?"
Questions on priority and sequence	"What is the first thing that the business traveler wants? And the next?"
Prediction questions:	"What is the future for Apple?"
Hypothetical questions:	"Okay. Let's say you have a vacation, holidays from your job. Would you want to stay two weeks in la Quinta or somewhere like that?

Questions of extension:	"Now, what other area do you think La Quinta can transfer its skill to?"
Questions of generalization:	"What do you think about potential entrants? Is it generally easy or hard to enter this business?

Additional Categories:

Explicit comprehension check	"Could you explain that? What does it mean by political influence? "What does it mean by implicit understanding?"
Clarification request	"Could you rephrase that?" "What do you mean by that?" "Do you mean guanxi is not important in Hong Kong?"
Confirmation check	"It's a difficult choice, okay?" "Everyone get that?" "Once you've seen Michael Porter do it, it's easy, right?"
Aside (not part of the discourse related to the case)	"How do you say chalk in Chinese? Fung something?" Fung baht?"
Rhetorical question	"We're all faced with declining economies and what do we do with them? And Switzerland faced that..."
Question to identify respondent	"How about your group? " Can anyone help?" "Who is an accounting major?" "Sam, what about you?" "Who else?" "Who shall we give a shot to?"

Next, I identified all of the case leader's questions in the transcript of the Swatch case and classified them using my typology. On a code sheet that I designed, I also indicated whether the question was open-ended or closed, using the following definitions:

TABLE 2
OPEN AND CLOSED QUESTIONS

Question Type	Function	Example
Closed	To check the retention of previously learned information, to elicit factual information presented in the case	"Which company was that? Do you remember?"
Open	To promote discussion or student interaction; to stimulate student thinking; to allow freedom to hypothesize, speculate, share ideas about possible activities, etc.	"Anyone have any idea about that? What do you think?"

The length of each question (number of words/ seconds) was recorded on the code sheet as was the student response (if any). For each question, I also indicated the phase of the discussion: problem identification, alternatives, recommendations, or extension (application of case to other businesses, contexts, etc.). In addition, I recorded the position of the question:

1. a stand alone question (e.g. the lecturer asked a question and received a response and then moved on to another topic or he gave a response himself and then went on to something else);
2. repetition (the lecturer repeats a question that he has just asked);
3. a reformulation (the lecturer restates a previous question using different words);
4. an extension (the lecturer adds a few more details to a previous question).

In this way, I was able to identify patterns in the questions that were asked by the lecturer.

I also noted the wait time after each question and the verbal response of the student(s), if any, including the length and type of response. The two videotapes of the event also allowed me to record the nonverbal behavior of the participants but this is beyond the scope of this paper.

RESULTS AND DISCUSSION

PROFILE OF SUBJECTS AND THEIR LEARNING SITUATION

The *Business Policy and Strategy* course was taught in English by an American lecturer who is in his mid-thirties. Before coming to Hong Kong, he had taught business courses in the United States for five years. At the time of this study, he was in his second semester at this Hong Kong university and was teaching the strategic management course for the first time in this context.

Thirty-six of the 37 students enrolled in the strategic management course were Chinese; the remaining one was an American exchange student. Like the lecturer, he was a native speaker of English. Thirty of the class members (17 female and 13 male students, including the exchange student), completed a comprehensive survey about case-based learning in business. Five (2 males; 3 females) of the Chinese students were then interviewed in Cantonese about the use of cases in their strategic management course. The interviewees were chosen to represent a range of behaviors in the case discussions, that is, students who remained silent in class were selected as well as the few students who answered the lecturer's questions more frequently. The views of the American exchange student were also gathered in an interview in English.

All of the students in this course, who had an average age of 21.4 years, were studying full-time and were in their final year of undergraduate studies. None of the Chinese students had ever lived or studied in an English-speaking setting and their proficiency level in English ranged from intermediate to advanced. Only 6 had had work experience in business and this took the form of entry-level summer jobs. Before this case-based course, the students had studied cases in an average of 4.5 business courses.

This management course met for three hours on Monday mornings for fourteen weeks. The setting for the course was a traditional classroom with students seated in rows of moveable desks. Throughout all case discussions, the students remained in rows facing the lecturer who lead the case discussion in front of a large whiteboard. For each case discussion, one video camera was focused on the lecturer who wore a lapel microphone and the other camera focused on the students.

In the first class meeting, the lecturer introduced his approach to case-based teaching by way of a local case. He made it clear that he would often call on students individually during the case discussions. To facilitate this, he prepared name cards and a seating chart.

During the course, eleven Western-based cases were analyzed by the students in full-class case discussions with each session lasting approximately an hour. The lecturer frequently used the whiteboard to highlight key headings/points and frame each discussion.

BEHAVIOR OF STUDENTS IN CASE DISCUSSIONS

In the first phase of my analysis, I noted the behavior of the lecturer and his students in the case discussions and discovered that the Chinese students:

- usually remain silent unless singled out for a question;
- do not respond to comments made by their classmates;
- do not challenge the lecturer or other students;
- rarely bring in "outside" information;

- prefer to make very brief comments.

To better understand the reasons for their behavior, I initially focused on their perceptions and expectations [1999a]. By way of interviews and the survey, the Chinese students offered the following reasons for their reticence:

- shyness and fear of being the center of attention;
- lack of proficiency and confidence in their English language skills;
- lack of confidence in their ideas;
- fear of making mistakes and "losing face," (being embarrassed);
- insufficient preparation for a discussion/ problem-based pedagogy/ interactive learning (inadequate speaking opportunities in English at school);
- pattern of passive learning developed over a long period of time in the Hong Kong school system;
- insufficient points awarded for participation;
- fear of "dominating" discussion and being perceived as "show-offs;"
- reluctance to challenge lecturer or classmates in an open forum, consistent with Confucian values which promote harmonious relations;
- insufficient time to think (translate and formulate a response);
- waiting to be singled out as questions directed at the class were not considered genuine invitations to speak;
- considered themselves "active" listeners as they followed the discussion.

Cultural factors (e.g. Confucian values) and previous schooling experiences (e.g. didactic mode of learning) appeared to strongly influence the students' behavior [Jackson 199a]. It also became apparent to me that the lecturer's questions must play a very significant role in case discussions in this context since the students do not interject their own comments and questions. Because of their reticence, it is the case leader who is constantly at the helm. For this reason, I decided to take a closer look at the questioning techniques he employed in one of his case discussions.

THE SWATCH CASE

The Swatch case was selected because the reading, case video, and discussion were similar to others in this course. Also, by the 12th week when this case was analyzed, the students were very familiar with their lecturer's style of case leadership and the presence of an observer and video technicians.

To prepare for the case discussion, the students were assigned the reading: "The Swatch in 1993" by Arieh Ullmann [Wright, Kroll, and Parnell 1996: 367-390]. It provided historical background about the Swiss watch industry, focusing on the success story of the Swatch brand of watches. The case highlighted the fierce competition the company was facing and concluded with company executives expressing concern about the future of Swatch. In this open-ended, "decision" case, the readers were encouraged to come up with possible ways to ensure the continued success of the Swatch watches.

As usual, the students were asked to read the case on their own and then work in small study groups outside of class (maximum of six students) to prepare for the full-class case discussion. According to the students, Cantonese and some code-switching (a mixture of Cantonese and English) were used in these out-of-class meetings.

The discussion of the Swatch case lasted 55 minutes and followed a format that was similar to earlier sessions. The lecturer adopted an informal, friendly stance, smiling broadly and gesturing throughout. As in the other case discussions, he noted key points on the whiteboard, using headings and sub-headings in an outline format.

The data for my analysis of the Swatch case consisted of my field notes, the case reading, two videotapes of the interaction (one focused on the lecturer and one on the students), a complete transcript, a lexical analysis of the case reading and discussion, and interviews with the lecturer and six students about the learning experience. In particular, I was able to seek the lecturer's interpretation about various aspects of the classroom event throughout my analysis. Thus, the data about the learning situation included both quantitative and qualitative input in a variety of forms with a strong element of triangulation.

QUESTIONING PATTERNS

A detailed analysis of the questions and verbal/ nonverbal responses in the Swatch case revealed that the lecturer asked 369 questions with an average length of 7.46 words and 2.6 seconds. Ninety-nine percent (366) of the questions focused on the identification of problems facing the company. There were only 2 questions (0.05%) that required students to examine alternative solutions. Rather than ask students for their recommendations, the lecturer provided a summary of the options near the end of the session.

Only one question (0.03%) was used to encourage the students to extend beyond the case and identify another company they had studied that confronted similar issues. This is particularly interesting since the lecturer had commented in an interview before the discussion that he was frustrated that the students in this class do not bring in outside information in case discussions.

> In the organizational behavior classes that I taught in the US, they [the students], they supply a lot of their own experience. I guess they make more assumptions and maybe they will be a little more creative. And they'll look past the questions and the case a little bit more and ah make more comparisons with other companies and things and students here [in the strategic management course in Hong Kong] are usually hesitant to do that. You know they- they just- they just don't do it as often from what I can notice... I think I do a little bit more lecturing in the class since the students don't bring in their own experiences ... and here students are looking for the answer, you know. You know, I feel I have to talk a little bit more. It's more, more- a little bit like a proactive lecture I guess than an interactive one, I guess. [excerpt from interview with lecturer].

In the US, his students routinely related cases to their lives and he did not have to prompt them to do so. It seemed natural in that context. He was puzzled by the reluctance of his Chinese students to do the same thing. In the Swatch case, he did not take steps to explicitly encourage them to bring in outside information and they were unaware of his expectations. In interviews, the students expressed their belief that what was important was the information contained in the case reading. Differing cultural perceptions about what constituted appropriate topics for discussion seemed to be a factor here.

Following the definitions depicted in Table 2, I calculated the percentage of the lecturer's questions that were open or closed. An overwhelming eighty-four per cent (310) were closed; only 47 (12 %) were genuine invitations for the students to freely express their views and opinions.

Next, I sought to find out the degree of variety in the type of questions he used. Table 3 shows the results of the analysis of the questions using the typology.

TABLE 3
LECTURER'S QUESTIONS BY TYPE

176 (47.2%)	information-seeking
28 (7.6%)	opinion-seeking
7 (1.9 %)	diagnostic
4 (1.1%)	challenge
3 (0.8%)	extension
3 (0.8%)	generalization
2 (0.5%)	hypothetical
1 (0.3%)	priority/sequence
0 (0 %)	action
0 (0%)	prediction

107 (29.0%)	confirmation check
9 (2.4%)	clarification request
1 (0.3%)	comprehension check
20 (5.4%)	identification of respondent
22 (6.0%)	rhetorical
2 (0.5%)	aside
4 (1.1%)	other

There was little variation in the type of questions that were asked by the lecturer. The most frequent type was "information-seeking," that is, questions primarily designed to elicit factual information presented in the case reading. There were few or no questions of the following types: challenge, action, priority/sequence, or prediction. This is noteworthy since these type of questions promote critical thinking skills and are considered more cognitively challenging [Bloom, Englehart, Furst, Will and Krathwohl, 1956; Christensen 1991; Dillon 1994].

While the Chinese students indicated in the survey and in interviews that they had trouble understanding the cultural nuances in Western cases, they never asked for clarification in class and the lecturer used few explicit comprehension checks. Instead, he often followed a statement with "okay?" before quickly moving on to another point. The only student to ask questions about the case was the American exchange student and when he did so, the students began talking amongst themselves in Cantonese. They seemed to consider his comments as unimportant even thought they were directly related to the case. In interviews with several Chinese students after the class, some confirmed my perception while others noted that they had difficulty understanding his accent.

You know, only he [the American exchange student] understands the Western cases. But I think his answers have no point. He just flows ideas at will and his English is hard to understand. He has a strange accent. I just feel that his answers has no point and we couldn't understand his English. I don't feel that he answers the question to the point. I think he does not have contributions. [excerpt from interview with Chinese student]

The average wait time after questions in the Swatch case discussion was very brief (0.88 seconds) with another question often following in rapid succession. In fact, the most frequent pattern included five questions in a row with several extensions, reformulations and repetitions. This gave students little time to process the information before they were faced with another question as in the following excerpts which were typical:

> Do you think it was tough competition? I mean were companies getting wiped out? Ah.. ah people getting laid off? Or- or ah what- you know- ah when you look at the factory, um ah you know those factories in the- in the video. What type of factories do they look like? Do they look like factories that- that are changing all the time and going out of business, getting knocked down? What do they look like to you? [excerpt A]
>
> .... So what happens when it [a Swatch watch] breaks or whatever? Do you have to get rid of it? How long do these things last? How long can you expect this watch to-? How long can you keep it? [excerpt B]

When the lecturer directed a question at the whole class (57.7% of the time), he received an answer less than 10% of the time. In interviews with students, they revealed that they did not volunteer answers at these times as they did not interpret these questions as a genuine invitation for them to take the floor. When the lecturer singled out a student, as he did with 40.1% (148) of the questions, the response rate rose to 52.7% (78). The average length of student responses was 4.75 words with an average length of 1.25 seconds. Thus, the students' initial responses were as brief as possible. Again, by way of the survey and interviews, many students explained in interviews that they did not want to appear as "dominant" in the discussion while others lacked confidence in their ideas. For them to talk longer, they conceded in interviews, they would need to be "pushed" by the lecturer with follow-up questions.

From this analysis, it is obvious that the lecturer's questioning techniques may also partially account for the brief responses and the limited expression of students' views. Reticence of non-native speakers in case discussions is a complex phenomenon. While cultural background and previous learning experiences are certainly important factors, a lecturer's questioning techniques can also have a significant impact on the level of interaction.

CONCLUSION

Active student participation in case discussions is naturally a goal of most case leaders. Drawing students into discussions in a second language, however, poses special challenges. For example, in Asian contexts, students are apt to be quite reticent in these situations. How can case leaders draw the students into discussions and sustain their involvement?

In Hong Kong, some lecturers are so frustrated with the reticence of their students that they have resigned themselves to presenting cases as lectures, with no interaction. This does not have to happen. For example, in the first phase of my study, I discovered that the students in this management course were quite positive about case-based learning and genuinely wanted to take a more active role in the discussions. They admitted, however, that they would need a great deal of encouragement or "push" for this to happen [Jackson 1999a]. As I have reported in this paper, the type and delivery of questions and the limited wait time for responses may further explain the students' lack of participation. The encouraging news is that awareness of these factors can lead to improvements in the communication process.

The following pedagogical suggestions are drawn from my analysis of the interaction of the Swatch case as well as from the valuable input of the lecturer and his students by way of a survey and interviews.

SUGGESTIONS FOR CASE LEADERS IN SECOND LANGUAGE CONTEXTS

Physical Arrangements Conducive To Case Discussions

The organization of the class can have a significant impact on the learning situation. If the lecturer stands at the front of the class and rarely moves, then s/he will naturally be the center of attention. Moreover, students in the class in this study noted that they were at a disadvantage if they were assigned a seat at the back or sides of the room as the lecturer tended to be unaware of them.

Can students see each other or are they sitting side by side in rows facing the lecturer? If it is possible to create a U-shape, it would be advantageous as it could facilitate student-student interaction. It would also signal to students that this is not a typical lecture session where they can sit passively or sleep as the lecturer performs. Erskine, Leenders and Maufette-Leenders [1998] provide additional information about the impact of different classroom configurations on the discussion process.

Selection Of Appropriate Case Material

In my study, I discovered that the students had a very negative attitude towards Western-based cases, especially if they focused on companies, products, or situations that they were not familiar with. Many students indicated that they had difficulty understanding the background of the cases and were very frustrated. This was another reason they remained silent in the case discussions and why some were resentful of the comments made by the exchange student. When case leaders feel Western cases are important for the students to analyze, additional cultural information could be provided when the case reading is assigned. In the full-class case discussion, the lecturer could routinely ask questions that encourage the students to relate the case to the local context. The American lecturer in my study was surprised to learn how strongly the students resented the Western case material. Since he is highly motivated to reach his students, he is now working with a Chinese colleague to develop local cases. He hopes to eventually to be able to include a balance of local and Western cases in his strategic management course.

Induction Into New Discourse Community

Students who are used to a "transmission" mode of learning need to be gradually initiated into unfamiliar modes of learning such as case methods of teaching which place different demands on them and also promote different teacher-student and student-student relationships. Care should be taken to develop a climate of trust and openness so that students will be less fearful about expressing their views in class, especially if they differ from those of the case leader. At the onset of a case-based course, lecturers need to make their expectations explicit and set the standard for class discussions. The grading scheme should also reflect the importance the lecturer places on contributions in case discussions.

By emphasizing the pragmatic benefits of taking an active role in case discussions the case leaders can make their lives easier. Employers of major companies in Hong Kong, for example, seek business graduates who have well developed interpersonal, problem-solving and decision-making skills - the very skills that are promoted by this methodology. These expectations were voiced at my institution in an information seminar organized by major accounting firms in the territory. Students, however, may not be aware of the connection.

For students who are new to case-based learning, Maufette-Leenders, Erskine and Leenders' [1997] guidebook can be an excellent resource. It can help them better understand the rationale for this methodology as well as their lecturer's expectations.

The Student - Case Leader Relationship

Students who are most familiar with a very traditional, formal teacher-student relationship may find it disconcerting when a lecturer assumes the less formal role of facilitator in a case discussion. In Western contexts, free-flowing discussions may be quite routine; the merits of which are understood by the participants. For students in other cultural contexts such as Hong Kong, however, it may be more productive for case leaders to initially adopt a more structured approach, at least until students are more at ease in these situations.

The Role Of The Case Leader

There are several teaching strategies that lecturers could use to help students adjust to this new way of learning. For students in a second language context, case leaders could make more frequent use of the board to organize and keep track of points. For example, many of the student interviewees commented that they really appreciated the outline of the discussion that their lecturer sketched on the board. Several, in fact, commented that they would have been "lost" without it.

Pausing to offer a summary at appropriate intervals can also help the students better understand the direction of a discussion. With restatements, the students also have more opportunity to examine, change, and extend their responses. Providing closure to a discussion is especially important as students may be skeptical about the benefits of this approach to teaching. In my study, for example, the survey revealed that the majority of students expect a case discussion to conclude with the lecturer identifying the one "right" solution to the dilemma.

Heightened Awareness Of Student Concerns

Lecturers will benefit if they become more sensitized to the fears, concerns, and coping mechanisms of their students in these learning sessions. For example, instead of being annoyed at the lack of responses to questions addressed to the class, lecturers can routinely single out individual students for questions, preferably by name and then follow up with probes. While initial responses are apt to be limited to a few words, lecturers should not assume that this is due to lack of knowledge or "mental inertia". Instead of supplying a lengthier response themselves or moving on to another student, the lecturers could encourage the students to expand on their answers. When this happens, students may whisper to their neighbors in their first language and the answer may become a group effort. This is at odds with most Western notions about how students should act in class. This need not be seen as negative or threatening, however; if the overall aim is to get students to engage more fully in the discussion, it can be accepted as routine in this context. This should encourage more participation, reducing the students' fears of "losing face" in front of their classmates. The flow of the discussion will naturally be slow but the students are apt to be more involved and less anxious.

Since students may not like to be the center of attention and may be afraid that they will "dominate" the discussion if they say more than a few words, lecturers could try grouping techniques in their classes. For example, the students could prepare for the discussion in small groups outside of class as they did in the management class that I studied. Based on my study of another business class that was more active in case discussions, I would also suggest that the students sit together in their groups for the full class case discussion. Students could then respond to questions on behalf of their group, taking away the fear of being labeled as "know-it-alls" by their peers. Other researchers in Asian contexts have made similar recommendations [Anderson 1993; Littlewood 2000; Liu and Littlewood 1997]. To encourage the full participation of all students, lecturers could require that groups rotate the tasks of chair and recorder for each case discussion.

Having the students sit in the same places with name tags could also facilitate their involvement and interaction; the lecturer would also become more familiar with the participants more quickly. The students in the American lecturer's class commented in interviews that they really appreciated the efforts he made to learn and use their names. His personal touch helped to promote a classroom environment conducive to the sharing of ideas.

More Effective Use Of Range Of Questions And Time Management

Questions require different levels of thinking or abstraction. For example, some can be answered with information from general experience or by recalling facts presented in the case reading. Other types of questions are much more demanding, requiring students to synthesize information and apply concepts to new situations. As Christensen [1991: 158] notes, "the construction of a question can influence the style, content, and emotional character of the response it triggers". In addition to the typology presented in this paper, lecturers can become more familiar with the range of questions types and their impact by consulting such references as Barnes, Christensen and Hansen [1994], Bloom et al. [1956], Christensen [1991] and Welty [1989].

In the Swatch case discussion, the majority of questions were taken up with factual information contained in the case reading. In an informal interview, the lecturer indicated that he had wanted to be sure that the students had grasped the facts of the case. This was time-consuming, however, leaving little time for the more challenging, open-ended, reflective questions. One possible solution that we discussed was requiring students to prepare a brief summary of a case or fill in an information grid before the full class case discussions. He could then be assured that the students had read the case and were more familiar with the key facts. There should leave more class time to delve more deeply into an analysis of the issues, and in the process, help students refine their critical thinking and decision-making skills, maximizing the potential of this methodology.

Enhanced Listening And Response Skills

In discussions, the ways in which case leaders react to student questions and responses can influence both the pace and tone of the session. If case leaders respond in a manner that demonstrates that they have not only heard but understood what was said, the students are more apt to feel at ease and should be more confident in voicing their views. If students' comments are unclear, clarification should be sought. Further, case leaders could chose to expand on what students have said or challenge them to explain their position more fully. Listening attentively also reinforces the message that student comments are valued and essential in the discussion. It is also worth noting here that while Chinese students seem "passive" to Western lecturers, my ethnographic research has found that most actually want to take a more active role in the discussions but need more encouragement or "prodding' for this to happen. Empathetic listening and follow-up questions can help the students move into the unfamiliar role of active participant in these events.

Promotion Of Student-Student Interaction

If student-student exchanges are desired, lecturers may need to take steps to promote this in case discussions. For example, in contexts where students revere the words of their lecturer, the "expert," and routinely discount the comments of their classmates as is the norm in my context, lecturers will need to use specific questioning strategies to promote discussion between members of the class. Following a student's response, the lecturer could direct the discussion to a classmate by asking questions such as: "Do you agree with that statement? Would you do the same thing?" If lecturers do not make student-student interaction a priority, the discussion will likely resemble a game of catch with the lecturer throwing out a question to a student who then may or may not throw an answer back; the whole hour-long discussion is apt to proceed in this way with no intervention. Without encouragement and a strong "push," students are very unlikely to jump in and express their views or change the direction of the discussion.

More Relaxed Pace

In second language contexts, the pace of case discussions is very likely to be slower. Expectations regarding the rate of speech and length of student responses should be realistic and in tune with the proficiency level and confidence of students as well as their preparation for this mode of learning. One of the most frequent concerns expressed by students in this study was the limited amount of time given for them to formulate a response before the lecturer either moved on or asked another question. In particular, the students who had an intermediate level of proficiency in English, stated that they first formulated a response in Chinese in their heads and then had to translate it before speaking out loud. Naturally, this took more time than would be the case in a first language discussion.

As the lecturer in my study was used to lively, sometimes heated case discussions in an American context, he was sometimes frustrated by the slowness of the discussions in Hong Kong and, not surprisingly, he sometimes did not allow sufficient time for the students to reflect and respond. Case discussions that were once exciting became labor intensive for him as he felt like he was doing most of the work. Interviews with some of his students revealed that what seemed slow to him was actually regarded as much too fast by them. It takes time and considerable patience to adjust to a new situation and, in the process, come to understand, for example, that the reactions to pauses and silence in discussions differ across cultures. The lecturer in this study quickly filled pauses with further questions or comments, believing that a student's silence indicated that s/he did not know how to respond or perhaps misunderstood his question. The Chinese students, however, may have simply needed more time to reflect, consult with classmates, and measure their words carefully before speaking out loud, risking "losing face" in front of their peers.

Observation Of Self And Peers

To further enhance discussion leadership skills in a second language context, case leaders could have some of their case discussions video- or audio recorded. Carefully reviewing the tapes could increase their awareness about the type, speed, and delivery of their questions. This would also allow more time to observe and reflect on the verbal and non-verbal behavior of the students. By categorizing their questions using the typology presented in this paper, for example, case leaders could develop a better sense of what changes they should try to make in their questioning techniques.

It could also be very helpful to have a colleague review a case discussion and provide some constructive feedback. The lecturer in my study, for example, invited me into his classroom with my videotaping equipment and he subsequently encouraged an open discussion about the communication process in his classes. If possible, the input of an experienced case leader from the local culture could also help provide some useful insights into the communication process and help to explain student responses and behavior to specific types of questions. Lecturers could further benefit by observing the case discussions of their peers, local as well as expatriate case leaders.

Early in my research in this setting, I discovered that the lecturers often discussed which cases they were going to use in a semester but rarely touched on their case leadership style or approach to case-based teaching. Valuable information about questioning techniques, grouping strategies, and motivational techniques was not shared among colleagues. With a heavy emphasis on research and publications, unfortunately, teaching may get pushed aside. However, if the teaching situation was more productive, enjoyable, and rewarding, this would leave lecturers with more time to conduct research in a stress-reduced state.

Efforts to master the culture-sensitive art of case leadership not only benefit the students but the lecturers themselves and, ultimately, future employers of the graduates. As Christensen [1991:172] points out, "when instructors learn to pose skillful questions, practice true listening, and respond to the process of a class as well as its content, we increase the likelihood that our students will not only receive the ideas we posit, but reflect and act upon them in the years ahead." The lecturer in my study, for example, is committed to improving the connection with his students in order to maximize their learning and better prepare them for the real world of business.

LIMITATIONS OF STUDY AND FUTURE RESEARCH

My research represents a first step in understanding the impact of questions on the communication process in case-based classrooms where English is not the first language of the students. But it is only a first step: the size of the sample limits the strength of the present findings. At this site, however, I have also observed and videotaped fifteen hour-long case discussions by three other management lecturers. Following the same ethnographic approach, I have been examining stylistic variations in the questioning strategies of the case leaders and their impact on the behavior of the participants. I have also interviewed and surveyed the participants about their case-based learning experiences. This triangulation in the data is helping me to better understand the conditions that enhance or detract from the willingness of students to actively participate in case discussions. For example, I have discovered that students who are required to provide answers on behalf of groups give more detailed responses and are not concerned about appearing as "show-offs." There is less risk for them as well. Hopefully, my findings will continue to help me to provide useful pedagogical feedback for case leaders in my context. Similar interdisciplinary (e.g. applied linguistics/ business) research needs to be carried out in other second language settings to determine the most appropriate questioning techniques and strategies for specific cultural environments and learning situations.

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AN ANALYSIS OF SME INTEGRATION VIA RAYTHEON'S VERTICAL PARTNERING PROGRAM

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Abstract

This paper presents the results of a consulting activity by the New Hampshire Industries Group with Raytheon, Incorporated and some of its suppliers. The study demonstrated the effectiveness of information sharing between Raytheon and its suppliers as well as the potential for greater gains through closer ties in the value chain throughout the entire development process. The study took the form of a combination of a structured set of case studies and surveys of the prime and secondary suppliers involved in the program.

INTRODUCTION

Vertical partnering and other innovative business practices have become an important aspect of competitive advantage, especially for manufacturing firms, in a global economy. Firms in the defense related industries must adopt vertical partnering type programs as they strive to sustain competitive advantage through productivity gains while continuously improving quality. The overall purpose of the study was to develop and evaluate a proposed business model for vertical partnering through the use of electronic commerce. The validation of the model by this study was made in accordance with the Advanced Research Projects Agency's (ARPA) Electronic Commerce Resource Centers (ECRC) program mission to "deploy information technologies and tools required to meet the needs of DOD suppliers and SMEs in electronic commerce (EC). The Scranton, PA Electronic Commerce Resource Center, in partnership with Raytheon further delineated its mission to be to:

> *develop and validate innovative business practices and enabling technologies for an EC continuum that increases the capability of suppliers to use electronic data to improve internal processes and reduce cost and cycle time. The realization of the benefits will largely be dependent on the successful transfer of the concept to the largest number of primes possible.*

VERTICAL PARTNERING DEFINED

Vertical partnering takes several forms, but is considered strategic when the partners in the relationship gain a competitive advantage through mutual exploitation of each partner's core competencies. Initially, vertical partnering appears to be a way to reduce paper work and decrease bidding and manufacturing time. Current forms of vertical partnering have been most effective when environmental and technological change are taken into consideration. Technology, combined with other innovations such as JIT and SPC, reshapes the environment in which managers decide to make or buy a part. These decisions, therefore, determine the firm's structure and its supplier relations. Three trends were identified that have major implications for vertical partnering: Manufacturing, Strategic Outsourcing, and Specialized Supplier Bases.

GLOBAL COMPETITION - THE TREND TOWARD LEAN MANUFACTURING

Global competition has redefined the competitive landscape for American companies. Today, even though the United States still preserves its overall lead in technology industries, many American firms have fallen behind foreign competitors in industries they dominated, e.g., automobiles, steel, and consumer electronics. American firms, in many cases, have lost the lead because they were unable to reduce production costs and improve product quality sufficiently.

Japanese managers, especially, have relied on a different industrial and organizational structure to develop competitive advantage. Research has shown that Japanese competitors created a production system, that while less reliant on vertical integration, was more conducive to product and process innovation than America's large firms. The classic Japanese "Kingdom" model represents an organized network of companies arranged in a pyramid. A large parent company is at the top of the pyramid and is responsible for final production. The pyramid widens as you move down to progressively smaller suppliers. Formal business relationships bind the larger customer to smaller suppliers. Large Japanese companies use lean manufacturing practices, e.g., supplier certification, inter and intra-organizational teams, simultaneous engineering, target pricing, early design work, long-term contracts to foster relationship building and trust with suppliers.

As American managers remake their firms, they are building organizations that promote innovative, entrepreneurial activity among the firm's employees and between the firm and its suppliers. American manufacturers have adjusted to this new form of competition by adopting a similar type of lean manufacturing[1]. These firms have responded through strategic outsourcing and vertical partnering programs. Several US companies, similar to Raytheon's vertical partnering program, have opted to purchase components from reliable, outside vendors through strategic alliances and vertical partnering programs[2].

CHRYSLER EXAMPLE

In a recent Harvard Business Review article by Dyer [1996], Chrysler was credited with the creation of an American kereitsu through supplier partnerships. The success of Chrysler's supplier partnership program was so dramatic that it has been credited with increasing per vehicle profit from $250 in the 1980s to $2,110 in 1994. The program also is credited with improving Chrysler's ability to introduce new models more quickly than competitors increasing market share from 12.2% in 1987 to 14.7% in 1994. Chrysler's market share and profitability improvements were driven by the partnership program's successes in: shortening the product development cycle; reducing the overall costs of the vehicle program; and reducing procurement (transaction) costs.

STRATEGIC OUTSOURCING AND INNOVATION POTENTIAL

Whether it stemmed from the external demands of global competition or was fostered internally by managerial renaissance, many U.S. firms across several industry sectors, e.g., GE, IBM, Xerox, AT&T, Avis, Cannon, Chrysler, Forst, Wal-Mart, Nike, DEC -- have adopted their own hybrid version of specialized networks (Silicon Valley is an example of a successful geographically centered hybrid network). Small and medium sized establishments (SWs) both contribute to and benefit from these hybrid networks. New organizational forms and collaborative linkages of customers and suppliers have improved innovation potential for large and small firms. Modern information technology, including CAD/CAM, programmable robotics, and managerial practices such as statistical process control (SPC), just-in-time (JIT), dock to stock, supplier certification, and total quality management (TQM) have changed the work environment and created new and more sustainable sources of competitive advantage for SMEs and original equipment manufacturers (OEMs).

A survey by the Outsourcing Institute of over 1200 firms, furthermore, identified the top five strategic reasons for outsourcing for large firms: improved business focus; access to world-class capabilities;

accelerated reengineering benefits; shared risks; and the "freeing up of resources for other purposes. SMEs can share in these benefits and, if positioned properly, can compete more effectively by availing themselves to the more sophisticated technologies of the much larger customers.

SME NETWORKS

Research has shown that innovation is not tied to the size of the company, but to the quality of the business relationships tying companies to each other. The key unit of analysis is no longer a single company, but a decentralized network of companies, sometimes tying small suppliers to larger companies, and in other cases horizontally binding together a number of more or less equal small companies. These networks make possible continual innovation through the delicate balance of competition and cooperation. Firms extensively network to improve innovation potential [Lefebvre et al, 1992; Rothwell & Dodgson, 1991; Howard, 1990].

SPECIALIZED SUPPLIER BASE

The New Hampshire Industries Group Studies (NHIG) has shown through a series of case studies and surveys, that small to medium sized manufacturers and related service providers (software, human resources, engineering support, technical assistance) can benefit from the strategic outsourcing trend and adoption of lean manufacturing practices. As evidenced by the broad diffusion of strategic outsourcing practices across industry sectors, the changes in global competition presents opportunities and challenges to SMEs engaged in manufacturing. In particular, the work of the NHIG has shown that a significant portion of the growth in the manufacturing sector of the New Hampshire economy (and other sectors, software and engineering and managerial services) is attributed to the growth in SMEs. Strategic outsourcing and the adoption of "lean" practices to reduce waste by OEMs has been a major catalyst in SME growth.

Many SMEs in New Hampshire participate in hybrid customer and supplier networks that depend on technological and collaborative business relationships. NHIG has shown that the competitive advantage of small and medium sized firms in lead industries in the state is based on formal business relationships. NHIG has observed that one particular set of firms known as problem solving fn-ms develop collaborative relationships with larger customers and are more technologically sophisticated than are non-problem solving firms. Furthermore, problem-solvers tend to collaborate and pass on their technological sophistication to their suppliers. It was shown that SME competitiveness was positively related to their involvement in collaborative relations with their larger OEM customers.

STRATEGIC SUPPLIER TYPOLOGY

NHIG developed, though its research, a strategic supplier typology. In a study of two hundred New Hampshire companies, four types of SMEs were identified through development of a strategic typology matrix. SMEs were classified according to their degree of collaboration with customers (low to high) and their use of sophisticated technology (low to high). The four typs are:

Commodity Suppliers (low/low)
Collaboration Specialists (high/low)
Problem-Solvers (high/high)
Technology Specialists (low/high)

The study found that SMEs that develop high collaborative relationships with OEMs tend to be more technologically sophisticated. Problem-Solvers, along with Commodity Suppliers, were significantly more likely to have an average or above average gross margin compared to Collaboration and Technology Specialists.

COLLABORATION AND TECHNOLOGY LINKAGES

In one study of 98 New Hampshire SMEs, it was found that SMEs create and sustain competitive advantage (measures in terms of profitability) through higher rates of process and product innovation. The study showed that the effective management of innovation and collaborative relationships between OEMs and SMEs is not affected by firms' geographic proximity or size. The quality of the partnering relationships, and capability of the SME to access and use information by vertical partnering improved technological innovation and performance. That is, collaborative vertical partnering programs help SMEs to transcend spatial, firm and industry boundaries. Firms that engage in vertical partnering programs are more likely to be stronger performers.

IMPORTANCE OF INFORMATION SHARING

In a study comprising ninety U.S. OEMS, NHIG found that "lean OEMS" were statistically more likely to have above average gross margins compared with "non-lean OEMs" [Merenda et al, 1995]. The Group posited that mass production systems which are based on spot market relations with suppliers (SMEs) and

Supplier Strategy Typology

		COLLABORATION	
		LOW	HIGH
TECHNOLOGY	LOW	I COMMODITY SUPPLIER -Spot Market Supplier -Low cost, low price priorities -Little or no difference	II COLLABORATIVE SPECIALIST -Detailed Controlled parts supplier -Uses a closed network in each industry -Can be in many industries to maintain customer product information
	HIGH	III TECHNOLOGY SPECIALIST -Proprietary parts supplier -Innovation in product technology used to produce high barriers to entry -First mover advantages -Uses design capabilities for competitive advantage	IV PROBLEM-SOLVING SUPPLIER -Black Box supplier -High differentiation -Cost not important -Small runs, high process and labor flexibility

Source: Sloan Management Review, "How Hadco Became A Problem-Solving Supplier," January 1996, and The Economic Development Quarterly Vol.8, No. 1, February 1994: 43-66.
"Porter's Model for Geographic Competitive Advantage: The Case of New Hampshire."

standardized fixed, hierarchical structures impeded innovation potential and performance; while lean manufacturing systems based on relational, collaborative relationships with suppliers facilitate innovation and performance. The group found that a strong positive correlation exists between OEM/SME information sharing and gross margin performance. The study highlights the strong role information sharing plays as a lean manufacturing practice in firm performance. This finding supports the trend toward strategic outsourcing and lean manufacturing practices. As the trend toward a reduction in the OEM supplier bases continues, this reduction facilitates, and even more importantly, necessitates supplier certification collaboration and other lean manufacturing practices. OEM's ability to involve SMEs in product development, inventory management, procurement and other practices is enhanced through improved flow and sharing of information between the OEM and SME.

PROGRAM SUMMARY

Vertical partnering at Raytheon is a process by which its small manufacturing suppliers (less than 500 employees) access Raytheon's CAD/CAM software programs and electronic design data bases to assist them in the preparation of bids on component parts being outsourced by Raytheon. It is also of assistance in the subsequent product planning and tool path programming of the machine tools necessary to produce the part. Vertical partnering replaces the current bidding and machine tool design system which relies extensively on the circulation of paper drawings and less efficient methods for machine tool design. The system-wide procurement and production benefits of vertical partnering emanate primarily from reductions in bid to part production cycle times and increased efficiencies in the bidding, design and pre-production stages of component outsourcing to SMEs. Raytheon's program places it among the leaders in the development of vertical partnering in that it uses electronic commerce to partner with smaller suppliers, allowing them greater access to Raytheon's procurement and manufacturing data bases and technologies.

RATIONALE AND BENEFITS

Raytheon anticipates that its new model, as specified in its demonstrations and written documentation, will benefit its SMEs by offering them the increased capability to "shorten the Request for Quotation (RFQ), Purchase Order (PO) and manufacturing cycles, and makes available to SMES, the prime's CAD/CAM tools and data bases, thus improving the quality, timeliness and cost of SMF, quotes, process plans, numerical controls, and manufactured products."

Raytheon further anticipates that its new model, as specified in its demonstrations and written documentation, will benefit its ECRC partner, the Scranton, PA Center, by offering them a more sophisticated tool in its arsenal to support SMEs. Raytheon asserts that the new model implemented through the ECRC insertion plan:

> *can help SMEs utilize state of the art CAD/CAM tools with a perfect match for their prime contractor needs. This will clearly increase the extent to which electronic commerce is used in the defense industry, since electronic transmission of drawings, images and related engineering data bases is not currently available to the hundreds of SMEs from any of the primes. This will provide SMEs with the ability to compete more effectively for the defense and related businesses.*

STUDY METHODOLOGY

PROGRAM DOCUMENTATION - PROPOSED RATIONALE AND BENEFITS OF THE NEW MODEL

The authors reviewed and analyzed documents provided by Raytheon, including (a) presentation materials, (b) Vertical Partnering: Cost Analysis Model: Preliminary Draft, (c) Final Report for Vertical Partnering Subcontractor Facilitation, (d) Requirements Definition for Electronic Commerce Pilot: SME via Vertical Partnering, and (e) Summary Responses to Raytheon's SME survey. Also the authors participated in the Industrial Review Board meeting, several meetings with the Raytheon and the Scranton ECRC, and attended a demonstration of the new model. This step was conducted to better understand (1) the nature of the new program, its rationale and benefits, as defined by Raytheon; (2) to formulate research questions to be used in data collection; and (3) to validate the business case for the new model based on an analysis of current business practices in general and the benefits as reported by the SME partners.

RESEARCH FOCUS AND ANALYSIS

Given the proposed rationale and anticipated benefits of the new model the authors sought answers to the following questions:

1. Does the new model increase the capability of suppliers to use EC data to improve internal processes and reduce costs and cycle times, and if so,
2. Are the increased capabilities sufficient to attract adoption of the new model by the largest number of primes possible?

To objectively answer these research questions the authors, first reviewed Raytheon's written documentation and attended a demonstration of the new model. The authors then utilized the following sources of information for program analysis: (1) business literature on existing innovative business practices pertaining to vertical partnering arrangements; (2) New Hampshire Industries Group studies on specialized supplier bases; (3) interviews with five SMEs agreeing to be demonstration sites for the primes new model; and (4) interviews with engineers, Scranton ECRC program managers, and Raytheon senior procurement officials.

Information obtained during the SME partner interviews took the form of a structured case interview and was summarized and analyzed based on SME program costs and anticipated benefits. Similarities and discrepancies between Raytheon's proposed program costs and anticipated benefits and SMEs' reported costs and benefits were analyzed.

SME INTERVIEWS

During July and August, 1996, the authors conducted two field and three conference call interviews with the five SMEs agreeing to be interviewed for this study. The supplier partners were selected by Raytheon based on various criteria, including their geographic diversity (five from Massachusetts, one each from new Jersey and Maryland), product diversity and mix, prior participation in Raytheon's Technology Team Initiative, previous requests for prime engineering databases and not just drawings, drawings already in the electronic data vaults, and willingness to sign on to prime's pricing agreements.

Field interviews were conducted at two firms (A and B). An interview guide was used to structure the interviews (Appendix A). In addition to the guide, an amended "'Quickview' Manufacturing Intake Questionnaire" was administered at both Company A and Company B to confirm findings, plus verify information found in the prime's supplier survey. To guard against interviewer bias, a minimum of two members were present at all interviews. To guard against interviewee bias and validate responses, a minimum of four company representatives were interviewed at each company to reduce case response bias.

To verify the information gathered during the two field interviews, a conference call was made to three of the remaining SMEs agreeing to participate in this phase of the study. The three SMEs interviewed were: Company C, Company D, and Company E. Again, to guard against interviewer bias and to confirm the responses, the same two project team members conducted the conference calls. An interview guide was used to structure the interviews. Management from the latter three SMEs were provided copies of the interview guide, in advance, to help them prepare for the conference call interviews.

SUMMARY

In general, all the respondents were remarkably similar and consistent with their praise for the new model. Without exception, they were very favorably disposed to the model. They saw it as a major step forward when compared to the current model and current practices in the defense related industry. The new model offered the SMEs increased access to the prime's most sophisticated CAD/CAM tools and electronic data bases. Comments ranged from "the anticipated benefits of the new model far outweigh any negatives associated with its implementation," to "it will save significant time and money, making the prime and the SME more efficient."

COMPANY A

Interviews were conducted with the head of Manufacturing; the head of Design; the President; and the Vice President. The company is a certified, DOD supplier to Raytheon and other prime contractors (Pratt and Whitney). The company also sells products to General Electric, Rolls Royce and Quantum. Quantum, a commercial account, is its biggest customer. Company A specializes in complex 3D machined and dip braised boxes that are designed to house various modules. The company also manufactures hardware (boxes) for sensing machines in the instrumentation industry.

Responses to the "Quickview" questionnaire showed that during the bidding/estimating process the company uses Electronic Data Interchange (EDI) for exchange of accounting data "to a large degree." Technical Data Interchange (TDI) such as technical information on CAD systems (Computer Aided Design) was "never/not at all" used in the bid/estimating process. Presently, RFQ (requests for quotes) are received by Company A by fax or mail. Notification of winning bids are by mail, fax or EDT. The company estimates that its success rate for all bids (the percent of bids that become jobs) is small but significant.

Manufacturing and Design heads both felt that the VP technology was "fantastic" from what they saw to date. The program, as presently designed and planned, would save significant time in the bidding process, improve access to more timely and accurate print information and facilitate engineering change order requests. This, according to the President, would eliminate a lot of the existing red tape and costly delays. encountered under the existing system. Direct access to Raytheon's data vaults during the bid preparation process would reduce information gaps, thereby improving the "accountability of bids," and significantly lowering the risks of preparing inaccurate bids.

Both top officers believe that VP would result in significant cost and time savings for Company A and Raytheon, while stating they were difficult to quantify at this time. They were concerned with "considerable costs cropping up" with the proposed change-over to the new model, however. Both managers were concerned about potential security problems to Company A's administrative, design and manufacturing systems while logging onto the net when accessing Raytheon's vaults. They estimated that the added costs to install a fire wall at Company A could be $10,000 to $15,000 over Raytheon's proposed budget of $20,000 for implementation of the new model. An anticipated benefit of VP to Company A was improved documentation of contract specifications and program requirements which would make it easier to stay an approved, certified DOD supplier. This would allow for an increase in the overall number and dollar volume of contracts with Raytheon.

COMPANY B

Interviews at Company B were conducted with a company consultant, the Chief Engineer, the Director of Manufacturing, and the President. Company B manufactures flex-rigid cable assemblies for defense and commercial customers, including Raytheon, Lockheed, Hewlett-Packard, Hughes and Quantum. Company B's top three customers are Raytheon, Hewlett-Packard and Lockheed. Less than 15% of Company B's sales are to Raytheon or Hewlett-Packard, down from 89% six years ago. The company employed 60 people with sales appropriate for a firm its size. Company B is primarily a custom manufacturer, with 70% of its products being designed to customers' specification and 30% catalog sales. Some catalog sales are made through the company's web page. The President reported that total sales for Company B had increased because of increased OEM outsourcing opportunities.

Responses to the "Quickview" questionnaire showed that during the bidding/estimating process the company "always/to a very great extent" uses Electronic Data Interchange (EDI) for clerical or accounting data. Technical Data Interchange (TDI) such as technical information on CAD systems (Computer Aided Design) was "never/not at all" used in the bid/estimating process. Presently, RFQs are received by phone, FedEx, faxed or hand carried to Company B. Notification of winning bids are received by phone or EDI. The company estimated that its success rate for all bids (the percent of bids that become jobs) is significant and high.

The consultant is a part-time Company B design engineering consultant who came to Company B after working at Raytheon. He was very familiar with both Company B's and Raytheon's design, procurement and manufacturing operations and processes. He sees great benefits stemming from Raytheon's Vertical Partnering Program with minor or no negatives. The greatest benefit he saw was gaining access to Raytheon's knowledge base. This included ready access to design features, revision status, and eventually more rapid response in processing and approving Engineering Change Orders (ECO's) coming from both the SW and Raytheon. The biggest problems faced by Company B, and he assumes the majority of Raytheon suppliers, was a lack of revision status control on prints received with Raytheon's RFQS; and costly and timely delays in approving engineering change orders. He believed the biggest benefit to the SME would be increased bid accuracy on RFQs because of the improved access to Raytheon's data vaults. He foresaw lower risks when estimating and preparing quotes.

The Engineering and Manufacturing managers, long-term Company B employees, confirmed much of what the consultant reported. These individuals reported that the problem with the current system is the incomplete drawings package received with Raytheon's RFP. The present system added weeks or even months to the estimating and bidding process. With the current system, bid accuracy is in question because of incomplete and missing information. In some cases products were over designed by the SME to cover expected contingencies stemming from poor information. The managers noted that under the current system, they could not get access to the right (final) specifications because the system did not provide two-way communication, and did not allow them to get ECOs to or from Raytheon "in a timely manner." They strongly felt that the new system offered improved access to Raytheon's vaults and increased two-way communication between Company B and Raytheon. This would reduce lead times, lower bid preparation costs and improve manufacturing cycle times.

The President reported that a recent Coopers and Lybrand efficiency study for the company showed that 50% of Company B's time was spent getting information, determining its accuracy and simply finding the right drawings or prints. The President estimated that there would be a 20% reduction in overhead costs to Company B if it could get more accurate and timely answers to RFQ questions. As a result, he strongly supported Raytheon's vertical partnering program, noting significant reductions in time, costs, and paper flow. He stated with the new model less people would be needed, projects would be implemented faster, and better product planning could be used. He further stated that the new model would allow Company B to bid on more RFQ's with the same amount of people currently in the company. The VP system would make "Raytheon and Company B more competitive." He noted that Hewlett-Packard is currently working with Company B with a similar type of system. He knows of no other defense contractor with a vertical partnering program. Hughes is not directly comparable to Raytheon since the work Company B does for Hughes is more on the lines of a job shop process. However, the President noted that the structure at Hughes gives the purchasing agent responsibility and authority to work closely with vendors. This makes their bid/estimating system easier and less costly to work with compared to Raytheon. ECO approval, print accuracy, and flexibility was superior when compared to Raytheon's current system.

The President also reported that Raytheon's vertical partnering would require little additional investment for Company B. He reported that the technology enhancements required for vertical partnering were a necessary part of staying competitive with his customers and the industries in which his company competed. The President noted that the biggest potential obstacle to the success of the new model was the current organizational structure that separates procurement from engineering and manufacturing. This structure makes it difficult to get timely responses by Raytheon to SME questions and ECO requests. He noted that if the new model delivers on improved access to the appropriate files and approval channels, then it would be a faster, more productive and less expensive way of doing business.

COMPANY C

A conference telephone interview was conducted with the Vice President of Operations for Company C. The company has been a supplier to Raytheon for 15 years and was part of Raytheon's Team 300

Program. The company employs 38 people and does business in metal fabrication, braising and machining. Customers include Textron, Lockheed and Lincoln Labs. Raytheon accounted for about a significant amount of Company C's annual sales. Total revenues are split between defense and commercial customers. Company C bids on approximately 2,000 Raytheon contracts per year, capturing about a large and significant number of them. The company uses EDI with Raytheon's purchasing department and has an internet connection, telephone, or mail. It receives RFQs by fax or mail. Notification of winning bids is by telephone or mail. There were no other Company C customers with a similar vertical partnering program or relationship.

The Vice President saw the potential for significant cost and time savings with vertical partnering. He noted that, "VP will make everyone involved more efficient." Currently, the company spent considerable time just chasing paper. He stated, "For defense customers the drawing was the Bible, with commercial accounts if the part was functional the customer would buy it." Similar to other Raytheon suppliers, he noted difficulty with the present system, including getting good information on revision status, drawing completeness, and finding previously approved engineering changes to drawings. He estimated that it costs his company an average of $1,000 per ECO and that there were three ECO' s for every part for the Patriot Program. It currently took up to three months to get a full set of ECO drawings from Raytheon. Vertical partnering had the potential to streamline both the bid preparation and production cycle which would result in significant savings in time and dollars to suppliers and Raytheon. The Vice President stated that with full VP capability, his company would be able to manufacture parts faster, improve productivity and make current facilities more efficient. He saw minimal financial investment to Company C to implement Raytheon's vertical partnering program.

COMPANY D

A conference telephone interview was conducted with the Vice President of Operations, the President, and representatives from Sales and Planning. The company employs 230 people with an appropriate volume of annual sales. Company D manufactures EMI (Electro Magnetic Interference) and RAMI (Radio Magnetic Interference) products for defense and commercial customers, including: Northrop, Lockheed, McDonnell-Douglas, Grumman, Boeing, AT&T/Lucent and Texas Instruments. Boeing is its largest customer.

Company D is ISO 9000 certified and is part of Raytheon's Team 300 Program. The company bids on at least 2000 parts per year, capturing a small but significant percentage of those contracts with Raytheon. Vertical partnering has the potential, according to management, to provide more business to them as a Raytheon supplier. Currently, Raytheon did mostly repeat business with Company D. As a result, management estimated that only 10% of current contracts with Raytheon would be impacted by the new program. Vertical partnering has the potential to improve Company D's success rate, according to the management team. RFQs are received by either fax, telephone or FedEx. Notification of winning bids is by either fax, telephone or EDI. Raytheon is its largest defense customer. Management concurred with Raytheon's estimated budget of $20,000 to fully implement the vertical partnering program, including training. The company is not involved in any other vertical partnering program. In addition to Raytheon, it is involved in EDI with two other customers. The company noted that it is easier to do business with commercial customers, noting that Boeing is faster and more flexible in the bidding estimating and quoting process.

The anticipated benefit of the VP program for Company D would be improved delivery times, cycle times, and accuracy as well as faster delivery of drawings and specifications. VP would save time in communications, especially for ECO approval and bid preparation and turn- around time. The present current system is one-way, excessively laborious and often providing incomplete and inaccurate information. They noted that with more timely and accurate information, the chance for human and technical errors would be significantly decreased. While the company currently worked well with Raytheon buyers, the current system prevented Company D from solving and heading off problems before they occurred.

COMPANY E

The President of Company E was interviewed for this study. Company E is a machine shop that employs 47 people with appropriate sales for a firm that size. Raytheon is its largest customer. Other defense customers include: Rockwell, Lockheed-Martin, General Electric and COMSAT. Its primary commercial customer is Quantum.

The company bids on approximately 1,000 contracts per year with a high and significant success rate. The President estimated that 25 % of the contracts would be impacted by the new program. RFQs are received by Company E via fax, telephone or FedEx. Notification of winning bid is by fax if over $50,000 and telephone if less than $50,000. Currently, the company uses EDI with GE. It currently uses the "Pro Engineer" system with Quantum, transferring files by modems. Quantum uses pure "and clean" data bases on its systems. Quantum documents are always current, including up-to-date revisions and ECO'S. With Quantum, the whole process is driven by the ability of the product to fulfill its intended function. In other words, if the product works and met price and delivery constraints, it is acceptable. This is unlike Raytheon's system which is driven by-the-book approach, and relies on whether the product met the specified requirements of the prints. The company's products are very similar to Company A's products except for Company A's additional braising operation. Company E is not involved with any other vertical partnering program, although Hughes has expressed an interest in working on a similar type program.

Similar to the other suppliers, Company E's biggest problem with the current system is missing information -- incomplete bid packages and costly delays in getting changes approved and back to the supplier. The current system is cumbersome, with a lot of paper going through the system. The new system has the potential to substantially lower the risk of human and technical errors in bid preparation and production.

The President noted that additional financial investment for VP implementation would be needed. VP will require archiving and back-up space, therefore, added computer memory. The company is buying a $25,000 Alpha workstation. They will also need a tape back-up as part of the system. All this will require added training costs.

VERTICAL PARTNERING: COST ANALYSIS MODEL

COST ANALYSIS MODEL SUMMARY

The authors reviewed Raytheon's cost analysis model for its vertical partnering project (the new model). The review sought to validate the appropriateness and completeness of Raytheon's new model cost analysis. The authors concluded that Raytheon's cost model provides a cogent procedure for addressing the possible savings from its vertical partnering technology. However, the cost analysis does not adequately state the business case for vertical partnering To adequately state the business case, the cost analysis report requires an analytical framework for determining whether the new model improves Raytheon's and SMEs' overall performance. Furthermore, is this overall performance sufficient to attract adoption of the new model by the largest number of primes possible?

NET PRESENT VALUE APPROACH

The standard financial framework for measuring firm performance is a Net Present Value (NPV) analysis. This process identifies a project's incremental after-tax operating cash flows, the incremental cash outlays necessary to undertake the investment and the project's risk- adjusted required rate of return. Financial analysts then discount the cash inflows and outflows at the project's required rate of return to calculate its NPV. The standard financial management interpretation is that a positive NPV will increase the firm's market value, while a negative one will decrease it.

Raytheon's cost model allows for an NPV analysis by identifying vertical partnering's cash outlays and its incremental cash inflows. The cash outlays (investments) include the cost of the software, equipment purchases (hardware), and training outlays, while the incremental operating cash inflows comprise the savings associated with estimating, bidding, and manufacturing. To complete the analysis, one has only to add the required rate of return (discount rate) which will be provided by Raytheon's corporate finance staff. A positive NPV will tell Raytheon and other primes to adopt the new model and invest in the project. If the NPV is negative, the financial investment in the model would not be attractive, and the prime should not invest in it.

FINANCIAL ANALYSIS: RAYTHEON PERSPECTIVE

We developed a financial analysis of the new versus old model for Raytheon, based on information provided by the company. Using Net Present Value, Breakeven analysis and Payback, Raytheon shows positive, large, and quick returns from this new model. The savings are due to the ability to match competitors advances, as well as the ability to share costs as well as information with its suppliers.

SME PERSPECTIVE

The SME will realize a low to moderately high rate of return on their investment in Raytheon's VP program. This primarily stems from the fact that VP, as presently configured: (1) is a procurement only program and not a total product development program; and (2) currently lacks access to Raytheon's 3D models with coordinates; and (3) lacks up-to-date information on parts and drawing revisions. The primary purpose of the new model is to convert these deficiencies. If successful, the new model has the potential to offer SMEs a high rate of return on investment.

PROCUREMENT SAVINGS

Raytheon, based on the five partner companies, estimates before-tax returns in the SME's cash operating expenses to the winner of a bid for the contractor. These combine savings in bid preparation; bid submission savings for the successful bidder; and savings for the unsuccessful bidders (the successful bidder incurs additional negotiating contract terms with the prime); and savings in the parts production phase.

The total savings to the SME is a function of the ratio of bids submitted that are impacted by VP to the number of bids won. The SMEs studied had a wide difference to their number of bids impacted by VP. Company C was unable to estimate the number of bids impacted by VP. Company A estimated that 50% of all bids submitted would be impacted by VP.

Based solely on the total savings for all bidders from the bid preparation and submission phase, and on initial average investment an SME would need to make, all but Company B would have a payback period of less than one year to recover the investment in equipment and training for all winning and non-winning bidders.

Based on the experience of the five SMEs analyzed, the probability of winning a bid impacted by VP is 31.80%. So the expected value of bid preparation and submission savings is relatively low and attainable. Based on the analysis of these numbers, again, all but Company B would be able to recover their initial investment in the first year.

If we include production savings in the estimates, then the number of bids needed in one year to cover initial investment is even lower and attainable by all the suppliers.

In summary, while the VP program offers SMEs dollar savings from procurement efficiencies, the real savings will come from extension of the program to other steps in the product development cycle, and manufacturing process. SMEs all noted significant cost savings, (as substantiated by Raytheon's own SNIE savings estimates) by having access to Raytheon's 3D models with coordinates through the VP program. With this information, SMEs would be able to download part technical specifications directly to the production floor, improving efficiencies, decreasing the chance for human error, ensuring the quickest response time possible, while maintaining overall quality standards. Furthermore, the VP program needs to include up-to-date information on prints (revision status and history) and on-line responses to supplier ECO requests. This is due to the substantial time and resources currently spent by SMEs in getting accurate information and timely responses. In conclusion, the anticipated outcome for the new model, as reported by the SMEs, were:

Lower costs of bid preparation.
Reduction in design errors and part proofing.
Implicit reduction in investment needed to bid competitively on parts.
Reduction in fixed costs of becoming and remaining a subcontractor.
Reduction in uncertainty of cost estimates for part production.

BUSINESS CASE FOR VERTICAL PARTNERING

SUMMARY OF BENEFITS AND ANTICIPATED OUTCOMES FOR RAYTHEON AND SMES

All of the suppliers studied indicated strong support for Raytheon's VP program and strongly recommended its adoption. The SMEs all see the savings from vertical partnering to substantially outweigh the costs. These savings stem primarily from the reports by SMEs of excess problems with the current model. Problems with the current model include: excessive time required to find appropriate information for bidding and manufacturing purposes, finding the most current revisions and ECOs, and a large and disproportionate amount of time spent simply finding the most current plans and specifications from which to bid. The suppliers noted the current system exposes them to increased errors in bidding, preparing estimates, and manufacturing.

Many of these errors come from the manner in which Raytheon prepares and forwards the prints for bids. Errors come from SMEs when they re-build Raytheon's two dimensional drawings and prints to workable 3D models for use in their own CAD/CAM systems. If Raytheon allowed downloading of existing 3D drawings to supplier CAD/CAM systems, bid accuracy and responsiveness would improve. Also significant improvement in production planning and control would occur. This has the potential for substantial savings in bid preparation and production.

The current system is unnecessarily time consuming when it comes to processing SMEs' requests for information or approving ECOs. This results in excessive bidding and production delays. Part specification accuracy is further complicated by a lack of access to timely and accurate list of revisions or ECO changes as they are preparing bids, and in some cases manufacturing parts, using outdated and inaccurate information. As a result, all suppliers reported that direct electronic access to plan and drawing revisions and ECO histories would significantly lower the bid and production costs and, therefore, improve SMEs', as well as Raytheon's, return on invested capital.

All the suppliers indicated that they had either started or have already completed an upgrade of their electronic commerce systems. Two of the suppliers noted that they had their own WEB page and sites. They all had expertise in-house with EDI and planned to continuously upgrade their system requirements and capabilities. Of concern by the suppliers was access to proprietary information by competitors because of the VP program. They posed the following question: What protection or assurances will suppliers have that their design and costing information or inputs will not be captured by competitors; and if it becomes available to competitors, how will this information be protected or compensated? Also one SME was concerned about unauthorized access or intrusion into the supplier's internal systems and data bases through the VP program. This SME questioned whether Raytheon's fire wall and security procedures extend beyond the prime to the SME? Several of the SMEs recommended that Raytheon establish a consistent set of software and hardware specifications and requirements to overcome these problems.

In summary, the SMEs strongly recommended that the new model go beyond the bidding process and include design and manufacturing. The SMEs stated that their expertise in design and manufacturing is not being fully utilized by Raytheon. As such, Raytheon is not capitalizing on their embedded knowledge and skills as problem solvers. In this manner, both Raytheon and suppliers would be able to maximize savings from vertical partnering. This would allow suppliers to link design and manufacturing operations into a complete system, allowing them to better plan and utilize their employees and facilities. Several of the suppliers noted that if this were to be accomplished, then they could bid on more projects at lower costs, since they would be able to more effectively and efficiently utilize their critical resources. This would improve productivity, since some of the suppliers are either at or near to capacity now, including two which are currently expanding their physical facilities. Full vertical partnering would, therefore, allow them to lower their direct costs and overhead.

CONCLUSIONS AND POLICY IMPLICATIONS

PRIVATE BENEFITS

In the final analysis, it is evident that the suppliers in this study have a clear understanding and appreciation of the value to be achieved through vertical partnering. They are committed to a system that better utilizes their capabilities as problem solving suppliers. They are also committed to making the upgrades in electronic commerce systems and vertical partnering programs to enhance the flow of product and process innovation and ideas between themselves and the primes. As a result, we strongly believe the vertical partnering program proposed by Raytheon has a high probability of being adopted by the largest possible number of primes. This would make better use of the embedded knowledge of SNES, and capitalize on their commitment to continuous quality improvement and productivity gains. The potential for savings and innovation from vertical partnering are clear as indicated in this study. It is for the partners to design a system that takes full advantage of the skills and expertise on both sides of the process.

SOCIAL BENEFITS

Raytheon's Vertical Partnership program would further reduce managerial risk in outsourcing. By integrating various CAD/CAM software packages and making these available to certified suppliers, Raytheon increases the productivity obits qualified supplier base. This situation reduces Raytheon's switching costs and forces suppliers to be sensitive to Raytheon's design, quality and delivery needs. Under these circumstances Raytheon can choose to outsource large portions of its manufacturing operations. By introducing vertical partnering, Raytheon would take a major step in creating an environment where it could completely outsource its manufacturing operations. This would allow Raytheon to concentrate on its core competency - systems design and assembly.

As far as we can tell, at least one technical problem remains before Raytheon could make this decision. Raytheon needs a dynamic manufacturing resource planning program for identifying available, qualified suppliers should a problem arise after a system's schedule had been established. Assuming vertical partnering becomes a viable technology and an interfirm resource program can be written, then Raytheon can transform itself from a lean to a virtual corporation, which designs systems and coordinates their production and assembly among independent firms. Such an alteration would obviously benefit Raytheon, but this movement to a new production system would confer substantial social benefits. The gains in manufacturing productivity are apparent, but gains would also occur in the capital markets. In a virtual manufacturing system, reductions in design and setup time would reduce uncertainty in the costs of a manufacturing project. These benefits should translate into more favorable financing terms for both OEMs and suppliers.

A virtual manufacturing system should also reduce the amount of capital needed by OEMs and component part suppliers. For suppliers this has particularly important consequences. A reduction in capital requirements may make it possible for individuals who would otherwise not be able to own and operate their own businesses to become owner-managers. Because owner-managers receive all residual cash flows, owner-managers are more likely to monitor and control operating expenses, thereby reducing the cost of the components to Raytheon and/or its customers even more.

Overall, capital needed for the industry may also be reduced because Raytheon and other prime contractors could reduce peak production capacity needs. More of the peak production needs could be handled by the suppliers who are able to internally "diversify" peak production needs of the prime contractors. Not only would this reduction in investment lower overall financing charges for the industry, but the capital could be deployed elsewhere in the economy.

Vertical partnering may offer additional benefits by allowing for a private means for diffusing advanced technologies among the nation's supplier base. For some time policy makers worried that America's suppliers were not adopting advanced manufacturing technologies (e.g., CAD/CAM) as quickly as German and Japanese component part manufacturers. Many noted that these two nations had well established industrial extension programs to provide small and medium size firms with information about new technologies.

Raytheon's vertical partnering could allow regional suppliers to access the system. To open up the system, Raytheon would become a rental agent charging a user fee for access to the system. To enter this business Raytheon would have to negotiate licensing arrangements with software manufacturers by demonstrating that licensing systems provided greater profits than the current proprietary system. For Raytheon to make this case, it must enter into detailed negotiations with a select group of software manufacturers. The federal government has an interest in promoting these negotiations because, if successful, the government could exit (or substantially reduce its participation in) the industrial service business.

SUMMARY

In summary, there is strong evidence that information sharing through vertical partnering and other lean manufacturing practices enhances performance and innovation potential. Raytheon's new model is an innovative approach to the timely and more effective transfer of information to SMEs by offering them increased capability to access the prime's more sophisticated CAD/CAM tools. It appears from current trends in manufacturing that the new model compares favorably to the most innovative business practices. The new model has the capability to shorten bid and production cycle times, lower costs, and improve the quality, timeliness, and costs of SME quotes, process plans, and numerical controls.

Through the extension of the vertical partnering process to include the SMEs during both the product development and manufacturing processes, the full benefits of the collaborative supplier model can be achieved. It is clear that Raytheon has not yet taken full advantage of the embedded knowledge and skills of the SMEs in its value chain. Furthermore, extension of the electronic commerce information sharing with the SMEs to the production process will expand the gains to be derived from the vertical partnering process.

ENDNOTES

1. For a general formulation regarding Japanese manufacturing advantages see, Aoki, Mashiko. "Toward an Economic Model of the Japanese Firm," Journal of Economic Literature 28:1-27; and Michael Best, The New Competition (Cambridge, MA: Harvard University Press). For a detailed study of Japanese auto supplier relationships, see Michael Smitka [1991]; Michael A. Cusumano and Akiro Takeishi, [1991] provides additional information on Japanese and U.S. auto parts suppliers. Kim B. Clark and Takahiro Fujimoto [1991] provide a comprehensive analysis of how the auto industry integrates design engineering, product development and mass marketing. The classic work summarizing changes induced by the Japanese in the auto industry remains, William J. Abernathy, Kim B. Clark and Alan M. Kantrow [1983].

2. See for example, Roy Rothwell and Mark Dodgson [1990]; Shawn Tully [1993]; James Welch, Laddie Cook, and Joseph Blackburn [1992]; Gerald S. Cole [1988]; Bill Smith [1988]; J. Douglas Blocker, Charles W. Lackey, and Vincent A. Mabert [1993]; James P. Womack and Daniel T. Jones [1994]; andJames Bryan Quinn and Frederick G. Hilmer [1994].

APPENDIX A

Questions For Raytheon SubContractors
Vertical Partnering Program
New Hampshire Industry Group (NHIG)
Whittemore School of Business and Economics
University of New Hampshire

1. What budget has been assigned your company to prepare your computer hardware and software for the transition to a vertical partnering program?
2. Is this budget adequate to meet the needs of the transition to the vertical partnering program? If not, how much extra will be needed to fully prepare your company to prepare for the vertical partnering program? What will be the use of these extra funds?
3. Do you see any security problems when you start using the intemet for access to Raytheon's Vault for their plans and specifications? If so, what problems do you foresee? How do you plan to overcome these problems? At what cost? Are these costs included in the budget you discussed in question 2, previously?
4. What do you feel are the major problems with the current system of bidding, procurement, and contract completion with Raytheon? How do you feel that these problems will be overcome by the proposed vertical partnering program?
5. What is your evaluation of the process Raytheon uses for approving and communicating Engineering Change Orders (ECO's)? Will the proposed vertical partnering program overcome any problems in the current system? If not, what needs to be done to overcome these problems?
6. What do you see as the benefits of the proposed vertical partnering project to your company?
7. Who in your organization will be directly involved in the planning and implementation of the Raytheon vertical partnering prograin? What are their titles and responsibilities? What is the approximate cost of these activities?
8. Are you engaged in any vertical partnering programs with other customers? If so, who are these customers? Compare the benefits and disadvantages of these programs with the proposed Raytheon vertical partnering program.
9. Are you involved with any form of electronic commerce, such as EDI, with any customers? Which customers? What kind of electronic commerce do you use?
10. What is the sales growth have you experienced from 1994 to 1995?
11. Approximately how many customers do you serve?
12. What percent of sales is represented by your two largest customers?
13. How many parts orders do you bid on for Raytheon in an average year? How many parts contracts do you perform for Raytheon in a given year? What is the dollar volume of these contracts? What percentage of the bids and what percentage of the actual contracts for Raytheon do you feel would be affected by the proposed vertical partnering process?
14. What percentage of your business is commercial versus defense oriented? What other defense customers do you have other than Raytheon?
15. What percent of your commercial sales are to your two largest commercial customers?
16. Compare your relationship with your largest commercial customer with your largest defense customer.

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CHAPTER FIVE

TOTAL QUALITY MANAGEMENT IN EDUCATION
A HOLISTIC APPROACH

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Abstract

For a country to compete in the global village, its education system should deliver educated people of the desired quality. In the desired quality equation parameters such as productivity, wealth creation and customer satisfaction appear. To account for quality with respect to these parameters a holistic approach to total quality management (TQM) is needed. Quality assurance components are the responsibility for:

- maintaining the quality of the service
- enhancing the quality of the product
- taking ownership of the systems that are in place
- keeping effective structures and mechanisms in place

In this article the focus will be on ownership of the systems in place, and specifically:

Clients and Customers

In education the client-base is two-pronged. On the one hand there are students who are the direct receivers of education, and on the other are industry and commerce who are to employ these graduates in the labour market.

Faculty

The competence, functioning and contentment of faculty need to be reviewed in a TQM system.

The Organization

The productivity of the organization in achieving its goals by the productive implementation of scarce resources is reviewed.

INTRODUCTION

A county's progress and ability to create wealth in an international market is closely allied to the quality of it's people. Thus the quality of education is of crucial importance to gain this advantage.

In this respect the success of Singapore as a competitor in the international market serves as an example. The Vice-President of Singapore (1992) stated that Singapore's success could be attributed firstly to Singapore's ability to convert their research and development in science and technology into wealth creation and, secondly to the quality of their people's education (intellectual capital). In tables 1 and 2 an evaluation of these parameters by the Institute of Management Development, Lausanne, Switzerland is given.

TABLE 1: RESEARCH PRODUCTIVITY: GLOBAL COMPETITIVENESS (RANKING OUT OF 46)

COUNTRIES	WCI (1)		S+T (2)		HR (3)		GDP (4)	
	97	Apr 99	97	98	97	98	97	98
RICH								
USA	1	1	1	1	12	8	28 697	30 507
Finland	4	3	6	6	1	3	24 210	22 566
Switzerland	7	6	5	5	6	7	41 208	35 421
Germany	14	9	3	3	19	21	28 720	25 363
UK	11	15	14	17	23	25	19 691	21 952
EASTERN TIGERS								
Singapore	2	2	8	9	5	1	28 472	31 167
Hong Kong	3	7	18	25	13	13	24 532	24 532
Japan	9	16	2	2	11	11	36 857	33 655
Taiwan	23	18	10	7	21	18	12 760	13 119
EUROPEAN TIGERS								
Czech Republic	35	41	44	37	24	28	4 895	4 932
Hungary	36	26	28	27	29	30	4 436	4 426
Poland	43	44	42	44	35	41	3 475	3 516
DEVELOPING								
Venezuela	45	45	45	46	42	42	3 074	3 947
Russia	46	47	26	19	41	33	2 977	3 119
South Africa	44	42	40	39	46	46	3 028	3 006

1. *World competitiveness index (ranking)*
2. *Science and Technology capacity and success in basic and applied research (ranking)*
3. *Human Resources: Availability and qualifications (ranking)*
4. *Gross domestic product per capita in USD*

Reference: World Competitiveness Report, IMD, Lausanne, 1998

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TABLE 2: EDUCATION PRODUCTIVITY: GLOBAL COMPETITIVENESS RANKINGS (OUT OF 46)

COUNTRIES	Science Education (1)		S & T youth (2)		Education (3)	
	97	98	97	98	97	98
Rich						
USA	31	31	34	29	24	17
Finland	8	15	4	9	3	3
Switzerland	6	18	9	8	4	4
Germany	16	17	19	21	13	20
UK	41	34	44	45	29	31
Eastern Tigers						
Singapore	1	1	1	2	1	2
Hong Kong	14	16	20	19	21	19
Japan	10	14	25	23	31	30
Taiwan	5	5	2	1	15	8
European Tigers						
Czech Republic	20	13	41	40	23	28
Hungary	3	2	5	5	10	5
Poland	30	12	13	16	28	41
Developing						
Venezuela	46	45	45	44	46	45
Russia	26	19	42	36	44	22
South Africa	45	46	46	46	45	46

1. *Science education ranking.*
2. *Interest of the youth in science and technology.*
3. *Whether the educational system satisfies the needs of a competitive economy.*

From these two tables it may be concluded that, at present, the countries with the better developed human resources and exploited intellectual capital demonstrate the better wealth creation (in terms of the gross domestic product). This correlation is also valid for the relation between science and technology, success in basic and applied research as compared to wealth creation (GDP). It may thus be expected that those countries that improve their educational productivity will improve their global competitiveness and therefore their wealth creating abilities.

From this model one may expect countries such as the Czech Republic, Hungary, Poland to prosper at some future date because of their efforts to improve the quality of their intellectual capital. On the other hand the "red lights have started to flicker" for countries like the USA and the UK with an evident drop in ratings. However, they are making serious efforts (with eg the Baldridge project)to curb the tendency and to achieve higher educational standards.

The importance of Total Quality Management in order to maximize a country's human potential now becomes relevant and the question to be asked at this stage is how quality in education may be achieved and maintained.

TOTAL QUALITY MANAGEMENT IN HIGHER EDUCATION

Higher education in the year 2000 will be seeing a continuation of a dramatic focus on the assurance of the quality of education and research.

TQM according to ISO(84023.6) refers to the management approach of an organization, centred on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society.

Mouton (1999) reports Hradetsky's definition in the following manner:

> *Total Quality Management (TQM) is a philosophy, a set of tools, and a process whose output yield customer satisfaction and continuous improvement. This philosophy and process differs from traditional philosophies and processes in that everyone in a company can and must practice it. It espouses a "win-win" attitude.*

Quality assurance generally holds many meanings. In Higher Education the most significant trend seems to be the attempt to balance paying attention to improving the quality of education while providing mechanisms and procedures that assure accountability and efficiency.

Upholding quality in higher education according to the former South African Unit for Quality Promotion for Universities(Sa) entails, *inter alia*, the following:

- Continuous improvement of education and educationists to accepted international standards/benchmarks through cost-effective instructional delivery models, research and development and technology transfer.
- Provision of qualified persons to the market-place who possess appropriate career, technological and life-skills and the necessary knowledge and ethics to function effectively in business, industry and society.
- Satisfying learners by making them employable; satisfying employers by providing qualified learners who are effective and satisfying communities by providing qualified learners for deployment.
- -rovision of effective and efficient administrative, financial, technical and support services to internal and external customers.
- Provision of physical infrastructures that support quality education, research and technological outputs.

In the SAAIR news letter Singh (1999) cites Meade as follows on quality assurance:

> *Quality assurance is a system of guaranteeing or assuring customers and clients of the long-term reliability and quality if an institution's produce or service. Quality assurance is seen as having four components:*

- everyone in the institution has a responsibility for *maintaining* the quality of the product or service;
- everyone in the institution has the responsibility for *enhancing* the quality of the product or service;
- everyone in the institution takes *ownership* of the systems which are in place for continual improvement;
- the institution satisfies itself that it has effective *structures and mechanisms* in place for continual improvement.

In this article the emphasis of quality assurance will be on ownership of systems that are in place for quality assurance and specifically with respect to the roles of faculty, the organisation and clients and customers.

THE ROLE OF FACULTY

A happy and content workforce is known to provide the best results to keep a system of quality assurance in place. It is therefore in the interest of the educational institution to satisfy the physiological and psychological work needs of faculty as far as possible. Physiological work needs include, *inter alia*, a safe workplace, sufficient salary/wages, and adequate lighting and ventilation. Psychological needs to be satisfied include, amongst others, the need to belong, the need to be respected and trusted, the need to be recognized, the need to develop, and the need for self-actualization.

Unfortunately, especially in developing countries, the labour market is abnormal and faculty tends to be abused by poorly developed managers. This is manifested by the strength of trade unions in education and the occurrence of strikes instigated by frustrated faculty.

Two important interventions used for quality assurance purposes are benchmarking and the institution of a Performance Management System.

Benchmarking

For staff to be competent their performance should be measured against the best standards in the field. One way of achieving success is by benchmarking. Educational institutions and departments should benchmark themselves against other educational institutions, both nationally and internationally. Apart from this benchmarking against standards set by professional bodies and held by commerce and industry is also necessary.

For staff to be content they must know exactly what the accepted benchmarking standards and criteria are, and how their performance will be measured against it. More than this, they must accept the standards and criteria and the processes involved in determining and measuring them. In higher education in third world countries the present trend seems to be that decisions and instructions flow from top management down to faculty while the flow of information is only upwards. This type of management system usually leads to frustration. According to Adair (1990)faculty favours a leadership style where the leader is not only a manager, but in addition also has a productive output of his own. Leaders are firmly against remote control by managers in developing countries. More autonomy should be allowed departments to enable decisions to be made where the action is. Benchmarking is only optimally productive if all faculty concerned are involved in the benchmarking strategy.

By mutual consent the department must decide what is to be done to make the department a player in the global village. Every member of faculty should then contribute according to his or her strengths to the success of the department. It may therefore be expected of a professor to contribute in a different way from a lecturer. This approach is productive because it not only recognizes the individual but also emphasizes the role of all faculty as a team in achieving success and strengthens cohesiveness of the team.

A system of performance management is usually put in place to ensure that benchmarked standards and criteria are achieved.

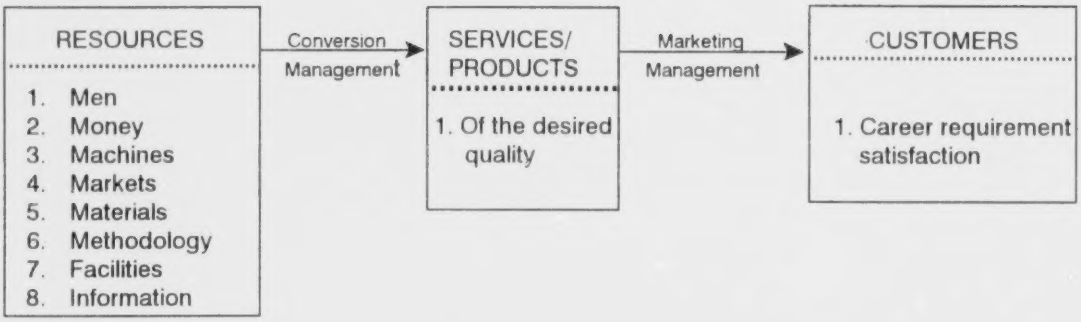
Performance Management

Performance management is a crucial process for aligning people with their specific business priorities and is used as part of a quality assurance strategy.

In most of the developing countries no, or a very poor performance management system (PMS), is in place. A typical poor performance management system will recognize on the old principle of "Winner takes all" leading to unnecessary friction between faculty. In most successful institutions a "win-win" recognition system is in place which recognizes the contribution of all. To be successful it is of critical importance (Bennet and Minty, 1999) that the primary purpose of performance management is seen to be as both a process for implementing the business strategy and as a vehicle for changing or creating the desired culture.

THE ROLE OF THE ORGANIZATION

The basic function of an educational organization is the productive application of scarce resources to provide services to produce products (or students) of the desired quality to satisfy the needs of customers (or commerce and industry). To achieve this a sound productive resource management system should be in place. This may be pictured as follows:



Unfortunately the application of resources in the attempt to produce the required products does not occur spontaneously. It needs energy in the form of acquiring knowledge, efficient management and leadership, application of skills and others.

Next a closer look is taken at certain aspects of resource management/leadership in the educational environment.

RESOURCES

Men

The educational organization expects from leaders of faculty to encourage members of faculty to use their strengths to contribute to the success of the organization. This is a two-pronged approach. To do this effectively, on the one hand, performance management systems should be managed in such a way that each member of faculty feels that he/she is a winner. On the other hand each member of faculty also has the responsibility to continually update and improve his/her skills in order for the organization to be a player in the "global village".

Machine Management

Instrumentation is growing in importance as an educational resource to further the aims, possibilities and quality of education. Large sums of money are spent on instrumentation and it is therefore expected from faculty to have an efficient machine management with regard to procurement, preventative maintenance, replacement and disposal.

Money Management

Educational institutions all over the world are experiencing financial problems. Usually they experience cuts in state subsidy and practically all have to exploit other financial sources in order to survive. Efficient management of finances is therefore imperative and all stakeholders should use proven financial techniques such as scientific budgeting and expense control.

Faculty with their specific expertise could employ these in entrepreneurial ventures to help departments make ends meet. Faculty could earn money by acting as consultants and doing consultative applied research, for instance. This would enable them to finance some of their own needs such as overseas visits and attending expensive workshops.

A hampering problem is that sometimes educational institutions have bureaucratic and top-heavy managements which tend to absorb at lot of the finances and thus limits the flow back of finances to the original wealth creators, namely the faculty.

Productive financial management by both the educational institution and faculty is imperative for attaining quality in education.

Markets As A Resource

To enable a country to become a contender in the international arena, the educational institution must educate people to satisfy the needs of the market. Existing markets should be kept satisfied and new markets should be exploited. It is the joint duty of faculty and the organization to maintain existing markets and to develop new markets by means of effective customer communication, feedback and education.

Materials As A Resource

Materials tend to be expensive and it is the duty of faculty to have a productive materials management in place. Procurement must lead to buying the correct grades of materials at the lowest cost. Storage of materials should be effective and an absolute minimum of inventory should be maintained (the "just-in-time" Japanese principle).

Methodology As A Resource

TQM in higher education entails the design, development, presentation and evaluation of learning systems that maximise student performance at a minimum cost in time, effort and money.

Faculty should therefore be proficient in the use of training methods that are the most efficient and effective in achieving the outcome to be mastered, be this, for example, the acquisition of knowledge and skills; the ability to analyse, to communicate, to synthesise or evaluate; to become entrepreneurs in order to create wealth; or the internalisation of work ethics. In addition Faculty should be able to use modern technological educational aids to further achievement of these goals.

Facilities

The educational institution should ensure that hygiene factors conducive to learning are in place. Important parameters are, *inter alia*, sufficient illumination, ventilation, audibility and protection against weather conditions. In order to be productive care should be taken that facilities(eg lecture rooms) are optimally used throughout the year.

Information

The world suffers from an information overload and faculty has the responsibility to evaluate, select and apply appropriate data for the purpose of wealth creation. Expensive library facilities as well as derivation of information from the internet should be utilized productively.

SATISFYING THE NEEDS OF CUSTOMERS

The greatest need of the student is employability, not only nationally but also internationally. Departments should ensure that their qualifications are acceptable to the labour market on both a national and international level. Entering into partnerships with similar departments abroad would increase a department's credibility and international acceptance.

It is important that faculty know what employers require with respect the training of students. This usually is more than mastery of a lot of theory and skills as employers also need employees who are, *inter alia*, able to communicate, have mastered higher order thinking skills and internalised the required work and professional ethics. It is only these latter well rounded students who succeed in becoming wealth creators in the global market.

TQM: PRACTICAL WAYS

Following a number of practical ways TQM may be achieved will be elaborated. Firstly a look will be taken at ISO 9000 which is an internationally accepted system of quality assurance, then the Baldridge programme as applied in the USA will be scrutinized and lastly measures employed by a developing country such as South Africa will receive attention.

INTERNATIONAL STANDARDS

ISO 9000

In the quest for the maintenance of standards and obtaining a competitive edge, some higher education institutions are investigating obtaining internationally accepted ISO 9000 accreditation. A number of universities in the UK, USA and Australia have already opted for the ISO 9000 route. ISO 9000 refers to a series of standards developed by ISO which apply to quality management systems and the processes used to produce a product or service. It provides a set of quality system requirements that are necessary to ensure that the processes in an organization are capable of consistently producing the products and services required by customers.

ISO 9000 standards:

- focus on customers
- introduce discipline in organizational systems
- introduce a systems approach which is both holistic and cross-functional
- provide for external credibility because of external assessment
- introduce accountability at all levels of the organization
- provide for benchmarking and support progress towards TQM.

The relevance of ISO 9000 standards for the maintenance of academic standards may be questioned, however, ISO 9000 and academic standards are not mutually exclusive and can co-exist to streamline systems, processes and academic standards in higher education.

TQM in a progressive country

The Baldridge National Quality Award System (1999)

In the USA a new development on quality in education has emerged. It is called the Malcolm Baldridge National Quality Award (1999)and is also available to educational institutions. The award application process, as well as the self-assessment against criteria for performance excellence, provides a steady and proven course for educational institutions with which to pursue performance excellence and maintain a leadership position. The self-assessment portion, which covers a wide range of key institutional performance indicators such as student/stakeholder, educational, operational and financial services and outcomes can be an invaluable strategy towards quality assurance for developing countries. The self-assessment portion allows for the identification of strengths as well as the targeting of opportunities for improvement of processes and results affecting all stakeholders.

Measurement against criteria may help in aligning resources, in improving communication and productivity as well as assisting in the achievement of goals. These criteria cover seven broad categories with items and point values included and is summarized in Table 3.

TABLE 3: CRITERIA FOR PERFORMANCE EXCELLENCE IN EDUCATION

CATEGORIES	ITEMS WITHIN CATEGORIES
1. Leadership (110)	- Leadership systems (80) - Public responsibility & citizenship(30)
2. Strategic planning (80)	- Strategy development process(40) - Educational institution strategy(40)

3. Student & stakeholder focus (80)	- Knowledge of student needs & expectations (40) - Student & stakeholder satisfaction & relation enhancement (40)
4.Information and analysis (80)	- Selection & use of information & data (25) - Selection & use of comparative information & data (15) - Analysis & review of institution's performance. (40)
5. Faculty and staff focus (100)	- Work systems (40) - Faculty/staff education, training & development (30) - Staff/faculty well-being & satisfaction(30)
6. Education & support process management(100)	- Education design & delivery (60) - Education support processes (40)
7. Educational institution's performance results (450)	- Student performance results (150) - Student & stakeholder satisfaction results (100) - Faculty/staff results (100) - Institution - specific results (100)
TOTAL = 1000	

The Baldridge programme is governed by:

The foundation for the Baldridge National Quality Award,
The National Institute for Standards and Technology (NIST),
The America Society for Quality (ASQ) and a board of overseers.

The governing body appoints a board of examiners who is to assess the self-assessment done by the particular educational institution.

In developing countries educational institutions should appoint a governing body. The governing body should then appoint a board of examiners to assess the correctness of the self-assessment done by the educational institution. The latter has lots of freedom in the self-assessment but it is important that the assessment must be of a high quality.

Items within the broader category *"Faculty and staff focus"* examines how the educational institution enables faculty and staff to develop and utilize their full potential, aligned with the institution's objectives. Also examined are the institution's efforts to build and maintain an environment and climate conducive to performance excellence, full participation, personal and organizational growth. An assessment is made of the services, benefits and actions taken to promote the mentioned criteria.

Also assessed is how the institution maintains a work environment and work climate that supports staff's well-being, satisfaction and motivation and how senior leaders, managers and supervisors maintain this. Approaches for supporting this might include counselling, career development and employability services; recreational or cultural activities; non-work-related education; day care, special leave; safety off-the-job; flexible work hours; outplacement and retiree benefits. Specific factors that might affect faculty well-being include also effective problem resolution and safety assurance; noting views on administration; providing training, development and career opportunities; preparation for changes; noting work load, environment and conditions; reviewing cooperation and team work, recognition, benefits, compensation, communications, job security, equal opportunities and capability to provide required services to students and stakeholders. In addition measures might include safety, absenteeism, turnover, grievances, strikes and other job actions, worker's compensation claims and the revealing of results of eg surveys. A detailed evaluation, as this one described should also be done for the other six categories.

It might be useful for educational institutions especially in developing countries to consider the introduction of systems similar to the Baldridge project. What is interesting to notice is the emphasis the Baldridge project places on the importance of needs satisfaction of faculty, the institution, the students and industry/commerce.

TQM IN A DEVELOPING COUNTRY

The Certification Council for Technikon Education (Sertec)

The South African SERTEC Act was promulgated in 1986. SERTEC adopted a policy of quality assurance based on the recommendations of visiting evaluating committees. A two-tier system of partial institutional audit and programme assessment and accreditation was established and in 1995 a system of self-evaluation was introduced for technikons in South Africa. Whether the efforts of such councils are successful in improving the quality of education in developing countries remain unclear, especially in view of the consistently low ratings obtained in the World Competitiveness Report.

The South African Qualifications Authority (SAQA)

When the future of education and training in South Africa came under review in a process that started in 1992, the following principles were adopted:

- Integration of education and training.
- Legitimacy, ie all relevant stakeholders will be consulted.
- Transparency, ie open to all stake-holders.
- Credibility, ie acceptability on both a national and international level.
- Maximum flexibility with respect to learning, access to and exits from education and training.
- Education and training should be relevant to the needs of the student, the region and the country.
- Nationally agreed standards and qualifications for all educationists in South Africa.

To attain these goals a National Qualifications Framework (NQF) was developed and is kept in place by the South African Qualifications Authority Act of 1995. The NQF caters for general education and training, further education and training and for higher education and training.

The establishment of SAQA was a major step forward with regard to the setting of standards and the monitoring of the quality of education and training at all levels. The standards will be set by standards generation bodies and coordinated by national standards bodies appointed by SAQA. The maintenance of standards is to be monitored by quality assurance bodies accredited by SAQA.

The Commission on Higher Education (CHE)

The CHE was established in 1997 (Higher Education Act (101 of 1997)). The Minister of Education is to be advised by the CHE and has the executive functions of quality promotion, institutional quality audit and programme quality assessment.

The CHE is to be accredited by SAQA as the quality assurance body for higher education. The establishment of a higher education qualifications assurance system (HEQA) is foreseen. It is possible that the current SERTEC will be incorporated into this system.

ASSESSMENT OF QUALITY IN EDUCATION

Evaluation of quality in education can be done quite easily if benchmarking is employed as it is a comparison of what has been achieved against what had been planned to be attained. If a faculty member achieved more than had been planned, he/she should be rewarded for it. If the achievement is not as was planned the reasons for the deviations should be thoroughly investigated and remedial action taken. In the same way the educational institution can use benchmarking to evaluate the quality of education in the institution as a whole.

Another way of evaluating quality in education is to issue awards such as "Lecturer/Researcher of the year". Although it appears in principle to be a good measure of quality, it is indeed regarded as dated, because it does not satisfy the needs of *all* faculty. Other productive members of faculty may feel cheated and this usually leads to negativity amongst faculty.

The quality of education can also be evaluated by means of student assessment of the lectures they receive. This system, however, also has pitfalls. To get a good evaluation from the students the lecturer might drop standards, leading to grading inflation. Sometimes students give a good strict lecturer poor marks in order to punish him. However, if done in the correct manner this type of assessment may give the lecturer valuable information on how students experience their lectures, and what aspects could be improved on. The assessment questionnaire should be a well-devised document that will incriminate neither the student or the lecturer.

It is important that industry and commerce should have an opportunity to contribute to the assessment of education, as they are the prime users of the "products" of education. A continuous feedback on the quality of graduates should flow from industry and commerce to the educational institution.

Self-assessment schemes similar to the Baldridge project could be very productive especially if self-assessment is monitored by an external organization.

In the end the extent to which the needs of students, the educational institution, industry and commerce and faculty have been satisfied reflects in the outcome of the quality assessment.

CONCLUSIONS

Quality is the only real basis from which to compete in the global market. Educational institutions will have to accept that they can only succeed and survive internationally if they can produce services and/or products of a desired quality. To achieve this they must understand the close relationship between the educational institution, faculty, the students and commerce and industry and how satisfying the various needs may produce the desired quality of education.

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HBS CASE METHOD DEPRIVES STUDENTS OF AN AUTHENTIC LEARNING EXPERIENCE

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Abstract

Case study teaching patterned on the Harvard Business School model deprives students of an authentic learning experience. The teacher is too much of a star and the students are too passive. As a result, the students fail to develop important skills that they need for success in their business careers. Four strategies following the concept of *Authentic Learning* are suggested. Students become more active and less dependent on the professor in class, perform challenging tasks in the real world of business and in general, engage in projects that are similar to the tasks they are expected to perform on the job.

KEYWORDS: Case Method, Authentic Learning, Business Success, Skill Development.

HBS CASE METHOD DOES NOT PREPARE MBAS FOR THE REAL WORLD

Case method teaching as developed by the Harvard Business School is centered on the performance of the professor. Students prepare for class by reading a case study written by experienced case writers, select a strategy and prepare to defend it. If time permits, they discuss their work with a few classmates before coming to class. The real action is in the classroom. The professor, who is a skilled discussion leader, asks provocative questions, pits one student against another, compares alternative solutions and goads the class into reaching significant conclusions [Bonoma, 1989]. Given typically large class sizes, the individual student's participation consists of one or two verbal contributions and a lot of watching and listening. Furthermore, even if the instructor wants to shift the focus of the learning experience from him/herself to the students, by organizing them into small groups and challenging them to prepare a presentation on the case, the layout of the HBS classroom makes this very difficult. In a style being copied by other B-schools, the students sit at tables fixed to the floor and arranged in five levels, colloquially identified (in rising order) as Worm Deck, Garden Deck, Power Deck, Warning Track and Sky Deck [Atlas, 1999].

In real world business settings, MBAs are not given case studies written by expert writers to analyze. If the newly-hired MBA is assigned to make a recommendation about a business situation, a substantial part of the assignment is to gather information and prepare an unbiased description of the situation. In performing this work, MBAs engage in most of the following:

1. Interview people and ask information-producing questions.
2. Conduct library research.
3. Conduct internet research.
4. Analyze the data obtained.
5. Prepare recommendations.
6. Give written and oral presentations.

Furthermore, in business settings, newly-hired MBAs do not participate in meetings of 90 people, arranged in decks and tracks conducted by expert case study discussion leaders. Typical business meetings consist of 3 to 6 people. Any more than that and some of the participants become observers. This is not a productive use of MBA time. High-priced case discussion leaders are not employed to conduct these meetings. It is expected that MBAs will be able to function effectively as members of small teams, sometimes working under tight time pressures.

It seems fair to conclude that current case study instruction practice contributes very little to the development of the skills that MBAs need to perform effectively in business. This is regrettable because case study work has great potential for helping students to develop essential business skills while they analyze Harvard Business School case studies in depth.

So, what is to be done? I have used the *Authentic Learning* approach in structuring case study courses because it offers the most realistic approach for preparing students to perform effectively in the world of business.

Some distinctions may be useful. In traditional teaching, the focus is on students' acquisition of facts and theories (content). The principal teaching method is lecture, possibly enhanced with discussion and audio-visual aids. *Experiential Learning* creates a more active role for students through case discussions, role-playing and simulations. Its aim is still to convey content but make it more memorable by increasing student involvement.

Authentic Learning differs from traditional and experiential methods in that the primary objective is not conveying content but creating learning experiences that are as close as possible to experiences that students encounter in real life. The emphasis is not on acquisition of facts and theories but on increasing students' ability to perform tasks that are valuable to employers and/or to the students themselves. The teacher's role is changed but not diminished. Instead of lecturing or leading a case discussion, the teacher provides direction, structure, guidance and standards.

SOME IDEAS FROM THE LITERATURE

Ricks [1994] is a strong advocate of the authentic learning approach. He asserts that each event that displays the superiority of the teacher threatens learning. Each event that demonstrates the success of the learner makes the learning permanent. In his 1997 paper, he concludes that people who have done a task well and have told others how they did it are nearing skills mastery while people who have been shown or told or "made aware" have not even taken the first step to mastery.

Gordon [1998] defines three types of authentic learning:

1. Academic challenges: Students produce a paper or a presentation assigned by the instructor.
2. Scenario challenges: Students make believe that they were hired by a business firm or a government agency to study a situation and to present a plan for solving a problem.
3. Real-life problems: Students examine a real situation and prepare a plan for solving a problem or achieving an objective.

Cronin [1993] offers suggestions for realizing the potential of authentic learning:

1. Do not expect complete authenticity.
2. Exploit available opportunities for authentic learning. Even traditional textbooks contain suggestions for authentic learning assignments.
3. Start with less complex tasks.
4. Keep it simple: students' experiences in school should resemble the experiences they encounter in their lives.

To sum up, if the goal of business education is to enable students to perform well in their jobs, teaching of content is not enough. Furthermore, traditional case study teaching is actually harmful to students because it builds up the role of the discussion-leading teacher at the expense of the students. Authentic learning is especially appropriate in a business school because students' success in business is so heavily dependent on teamwork efforts directed at solving problems and exploiting business opportunities.

APPLYING AUTHENTIC LEARNING

The actual application of the Authentic Learning may be described in terms of changed responsibilities. My job as a teacher has changed from being a leader of case discussions to being a mentor to students who take full responsibility for their education. I assign experiential and authentic learning work, provide guidance, supervise class meetings, read and grade reports and offer suggestions for improvement. The students do a lot of authentic learning work outside the classroom and write and present reports on this work. They also meet in class in changing groups with short-term authentic learning assignments and give presentations on their group work.

FOUR AUTHENTIC CASE LEARNING METHODS FOR DEVELOPING VALUABLE SKILLS

Let us start with the assumption that the original intent of case study work includes [Bonoma, 1989]:

1. Convey content in a memorable way.
2. Help students to acquire analytical and creative skills.
3. Help students to increase their ability to participate effectively in case discussions.

The purpose of applying Authentic Learning (AL) methods is to help students to accomplish everything listed above and to also gain experience in doing the following:

1. Work independently of the skilled case discussion leader in analyzing published and original cases thoroughly and creatively.
    a) As individuals.
    b) As members of small teams.
2. Give presentations.
3. Gather information from various sources for writing original cases.
4. Become adept at asking penetrating questions, in addition to answering someone else's penetrating questions.

Four Authentic Learning methods for achieving these desirable results are described below. They are: (1) Team Discussion and Presentation, (2) The Well-Structured Creative Case Analysis Method, (3) The Question and Answer Method and (4) The Original Case Study.

1. TEAM DISCUSSION AND PRESENTATION

Team discussion and presentation is where Authentic Learning breaks away from the widely-followed Harvard Business School tradition. Instead of putting (and keeping) the discussion-leading professor center-stage, the responsibility for analyzing the case is placed entirely on the shoulders of the students.

The students come to class having read and analyzed the assigned case. The instructor randomly selects teams of students to discuss the case and to prepare a presentation of the case. The first team that is ready presents. Teams compete for the privilege of presenting when class contribution is a substantial part of the semester grade. The value of this approach is that students engage in teamwork and give presentations, both of which are valuable in the business world. Very importantly, through repeated experiences in case preparation, team-discussion and presentation, students develop and refine their ability to analyze a wide variety of cases without becoming dependent on the professor to lead them through the discussion.

2. THE WELL-STRUCTURED CREATIVE CASE ANALYSIS METHOD

To assist students in productive analysis of the case, they need to learn a well-structured case analysis process that includes at least one brainstorming step for creating many alternatives. The value is that students learn a dependable process that they can apply effectively to the cases and to all goal-driven business and personal situations, without being being dependent on the skilled discussion-leading professor.

A summary of a case preparation process derived from the classical strategic planning model is presented below.

1. List the objectives of the company as presented in the case. Objectives are presented as desired outcomes usually stated with a verb in the infinitive, for example: to launch a new product, to increase sales, to enter a new market, to reduce expenses, and the like.

2. Arrange the objectives hierarchically. To discover the Top Rank Objective (TRO) of the organization, select an objective (from the list prepared in Step 1) that appears to be the ultimate goal of all their efforts. Draw a rectangle and write in the objective you have chosen. Then ask: "Why are they pursuing this objective?" Look for an answer to this question only in the list you prepared for Step 1. If you find an answer to the question, draw another rectangle above the first rectangle and write in the higher ranking objective. Connect the rectangles with a vertical line. Ask "Why are they pursuing this objective?" about the new top objective and repeat the same steps. Keep asking "Why" and drawing and filling in boxes until you cannot find an answer to the "Why" question. The objective in the top rectangle at this point is the Top Rank Objective, or TRO.

Ask: "How are they pursuing this objective?" to rank the objectives and strategies remaining on the list. Answers to the "how?" question are listed at lower levels.

3. Discover the Problems (Weaknesses and Threats) and the Opportunities (Strengths and Auspicious Conditions) of the company with respect to the TRO, defined as follows:

Problems
  Weaknesses = attributes of the company harmful to achieving the TRO.
  Threats = outside conditions harmful to achieving the TRO.
Opportunities
  Strengths = attributes of the company helpful to achieving the TRO.
  Auspicious Conditions = outside conditions helpful to achieving the TRO.

4. Decide whether the TRO is attainable, in view of the Problems and Opportunities. If it is, continue. If it is not, select a different TRO and repeat the P&O discovery, and then continue.

5. Create many possible strategies based on the P&Os, by answering these questions many times: "How can the company: Stop its Weaknesses? Defend against its Threats? Use its Strengths? Exploit its Auspicious Conditions?"

6. Develop several action programs for implementing the most attractive strategies, covering: benefits to the company from this program, actions required, responsible person(s), location(s), resources required, control system and contingency plans.

7. Evaluate the action programs and select for implementation the programs that appear to be the most effective in achieving the Top Rank Objective.

To help students to learn this technique, the teacher distributes detailed instructions with a sample case study and its analysis.

3. THE QUESTION AND ANSWER METHOD

For several class meetings, instead of assigning a case for reading before class, the instructor prepares a 3 to 4 page case that is not available to the students. The instructor "introduces" himself to the students by stating the role he (she) is playing for that class period. For example, the instructor might say "My name is Frank Anderson and I am the President of the Business Equipment Division." Students then ask questions to elicit the facts of the case from the instructor. Following the question period, the "Team Discussion and Presentation" process is used. The value is that students improve their question asking skills. The application to real life is that when the time comes for them to investigate real situations, prior to making recommendations, they will be better prepared for eliciting all the information they need for a proper analysis.

4. THE ORIGINAL CASE STUDY

Toward the end of the term, students are assigned to write and analyze an original case. Students interview local businesses and write reasonably detailed descriptions of the actual business situation. They present their cases and analyses to the class. The value is that in real life, they may be called upon to investigate and analyze real situations and this experience prepares them better for such work than if they had analyzed only cases written by someone else. Another value is that in preparing the original case, they may make valuable personal connections for future employment or entrepreneurial partnerships.

SUMMARY AND CONCLUSIONS

Case study teaching patterned on the Harvard Business School model falls far short of realizing its potential value. The teacher does too much and the students do too little. Case study work prepares students much better to become productive in the real business world if they:

1. Engage in student team discussions and presentations instead of being mere players in the teacher's orchestra,
2. Develop proficiency in applying a structured goal-oriented and creative process that yields useful analyses without dependency on the discussion-leading teacher,
3. Develop the ability to ask information-producing questions and
4. Write and analyze original cases.

Every suggestion offered in this paper is based on extensive development in the author's classrooms, over a period of many years, with the help of thousands of students and managers. These methods are recommended without reservations to all case study teachers who want to prepare students to function effectively in the real business world.

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FOURTEEN OPTIONS FOR DESCRIBING INDIVIDUALS IN CASES: GUIDELINES TO ENHANCE THE WRITING AND PRESENTATION OF CASES IN WHICH INDIVIDUALS ARE FEATURED

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Abstract

Fully-employed evening students in an Organizational Behavior MBA course write original cases that center on unsolved problems in their workplaces. The descriptions of individuals featured in these cases are of great importance, since both the essence and the resolution of such cases hinge on such aspects as the communications, actions, skills, leadership, motivations, influence and values of the key individual(s) in each case. Student case writers are helped by coaching that guides them to enrich the descriptions of individuals; this paper delineates fourteen methods to enhance the descriptions of individuals in cases.

INTRODUCTION

This paper focuses on enriching the descriptions of individuals in case studies written and presented by employed MBA students enrolled in a Management Department course in "Human Behavior in Organizations." These adult students write and present cases based upon actual situations in the workplace. Since the Organizational Behavior course concentrates on such topics as Communication, Motivation, Leadership, Group Dynamics and Organizational Culture, not only do the cases mention individuals involved in the cases, they almost always feature key individuals. The main challenges or problems in these case studies usually derive from the behavior of either one individual or a small group of individuals; thus, descriptions of individuals are pivotal in the writing, presentation and resolution of such cases. This contrasts with cases that focus mainly on technical or structural matters, although investigations of those types of cases often reveal the significant influence of interpersonal relationships, small group dynamics or other "Human Behavior" topics.

THE COURSE, THE STUDENTS AND THE CASE ASSIGNMENT

All the students in the course are currently employed, and they are required to have full-time working experience before enrolling in the program. The average age of students is thirty, and the average class size is twenty-one. The course ordinarily meets for sixty hours, usually one night a week, from 6:00 until 10:00 PM, for fifteen weeks, though there is also a format in which the course is taught in five weekends.

One course assignment requires students to write and present an original case study based upon an actual situation at their place of work. Case presenters also facilitate the attempted resolution of the problem(s)in the case. The course syllabus assignment states that "The case should include a description of the principal individuals involved in the case."

THE NEED TO IMPROVE THE DESCRIPTIONS OF INDIVIDUALS

Although all students in this MBA program are college graduates, most of them have never before written a case study. In fact, most have very little training or experience in describing individuals, and without coaching, they tend to describe case-related persons in terms of business background and a few descriptive adjectives about leadership styles or personality. In reading cases, readers receive very little help from such terms as "poor leader," "unmotivated subordinate," "bad boss," or "sorry excuse for an executive." Unless given additional information, the reader does not know whether such terms signify weak communication skills, lack of consideration, an overly autocratic management style, personality quirks, abrasive behavior, etc., or combinations of such negative aspects. Further, even if such a vague term as "poor supervisor" is qualified by adjectives such as "arrogant," or "distant," or "poor listener," or "excessively domineering," the reader does not grasp the actual situation nearly as specifically or as vividly as when additional information is given. What specific behavior is deemed "arrogant"? "Distant" compared to whom? When did the individual fail to listen, what did he or she miss, and what were the detrimental effects of failure to listen?

Similarly, in regard to individuals seen as "positive" by the case writer, inadequate information is conveyed by such accolades as "great boss," or "valuable employee" or "fine leader." What is really meant here? Again, even if the student case writer provides additional terms such as "exemplary, "trustworthy," or "supportive" the reader is left with many questions. Exemplary of what? How trustworthy? Supportive in what sense? It helps if case readers knows why such labels were assigned and how did the individuals in the case actually behave to prompt such adjectives?

Often in evaluating cases written by students, it is necessary to write in the margins, "Can you give a specific example or relate this individual to course materials with which we are familiar and which would help us to understand this individual more clearly, more vividly?" Also, during the actual oral presentations of cases, it is often necessary to ask for concrete instances to clarify vague descriptions or to call for illustrative examples from course materials. Drawing from such experiences, it has been found useful to coach students beforehand to enrich their descriptions of individuals in cases.

BENEFITS OF ENHANCED DESCRIPTIONS

Following are benefits of vivid, detailed descriptions of individuals who appear in cases, as compared with descriptions that merely contain a few adjectives or vague labels:

1. Case readers understand cases more clearly, more vividly.
2. Case readers know more surely what to address in the case resolution phase.
3. Case writers are prodded to experience the case more potently and to think through the case more concretely, more graphically, more realistically.
4. Cases are presented in a more engaging, more forceful mode.

FOURTEEN TYPES OF DESCRIPTIVE INFORMATION

Beyond mere adjectival descriptions of individuals, the following fourteen types of data enhance the descriptions of individuals in cases. The list is not exhaustive, and it would be too laborious or complex to use all of them in any one case; case writers must choose among them to find pertinent and useful types for each particular case, and the fourteen types of information given here may suggest other types for case writers.

PERTINENT BACKGROUND INFORMATION

Obviously, a case would be unwieldy if it contained an extensive biography for every individual involved; however, essential bio- graphical information can be developed in just a few paragraphs. Biographical information may also be woven into the fabric of the case. Typical background topics that may be explored are:

a. Formal Education, including major subjects of study and levels of attainment. In a student case that centered on conflicts in a successful bio-tech company, it was noted that Ph.D. scientists held high prestige, especially since the fortunes of the company depended on their research and accomplishments.
b. Informal Education. On-the-job-training, seminars, etc.
c. Special expertise or lack of expertise.
d. Years of experience in the present position.
e. Previous employment.
f. Career cycle (e.g., "new kid on the block," mid-career, close to retirement, etc.).
g. Career progress. Has this person been on a fast track, or has the individual been frozen in a position for many years?
h. Relevant demographics. Whenever it is pertinent to the case, include facts about national origin, gender, age, ethnicity or sub-cultural identity. It is relevant, for example, to mention that an international marketing manager working for a U.S. firm is a native of a target-market nation and that she speaks that nation's language fluently, versus an international marketing manager who knows only a few courtesy phrases of the language, seems to show little interest in learning more about the language and customs of that nation, and often makes cross-cultural blunders.
i. Results of performance reviews. What feedback has this person been given regarding such pertinent aspects as communication skills and the fulfillment of performance expectations?
j. Hobbies. Sky diving, surfing, mountain climbing or hunting imply different approaches to life compared with interests in bird watching, antiques or collecting postage stamps.
k. Acute stressors. Is the individual experiencing stress due to a recent divorce or death in the family or some other crisis? Describe how this might affect the person's performance at work or how it may influence the problem(s) in the case.

RELEVANT PHYSICAL ACTIONS

On several occasions, it was apparent that students who were supposed to be engaged in trying to understand or resolve a case seemed uninvolved. For example, they asked very few questions during the Question and Answer period of the case presentation. Invariably, however, after the presenter is asked to expand on and to mimic the behavior of the principal individuals involved in the case being presented, audience interest and participation have increased markedly. Physical action and the next aspect of behavior, C. Actual Dialogue, can be made vivid both in the written form of a case as well as through role playing or mimicking in the presentation itself.

It helps to include such non-verbal behavior as gestures, volume of voice, tone of voice and any relevant physical movement. Here are a few examples from recent cases written by students: "The company owner made unannounced visits to our remotely-located design office and literally looked over peoples' shoulders to observe what they were doing." "One employee stormed out of the room during a staff meeting." "A manager yelled so loudly that people three-doors away heard every word." "The executive in question often made decisions without consulting us, even though we had vital information and years of experience in relation to the matters at hand. And as he issued his edicts, he had a condescending tone and manner in his voice and gestures." "The Project Head often disappeared into her office and closed the door for an hour or more, all by herself. If you dared to knock on her door and enter, she either kept working at her computer and murmured `Yes?' in a monotone, or she peered at you over her glasses and sighed `What is it?'"

One student case referred to group behavior in an example that helped to define the corporate culture of the organization in her case. An employee, the mother of a young child, suffered the death of her husband. As she approached using up all of her vacation and time allowed for illness or emergencies, the company's Human Resources Department made a plea to employees to donate vacation or sick days; more than enough days were donated to allow the widow to recover adequately before returning to work. This is more vivid than a statement such as "we have a supportive organizational culture."

ACTUAL DIALOGUE

Based on observations of participants who attempt to solve "Human Behavior in Organizations" case problems, actual dialogue appears to be useful and stimulating. One student case recorded that a manager stated in a staff meeting, "Lab Technicians are a dime a dozen;" this was spoken in the presence of Laboratory Technicians who had requested enhanced working conditions and benefits.

IMPACT ON OTHER PEOPLE

How do key individuals' behaviors affect other people, including peers, subordinates, customers, etc.? Actual examples: "When his limousine was a few blocks away from the corporate headquarters, Mr. Q would telephone this fact to a subordinate, triggering a rush of anxiety and a flurry of preparatory activity." "My boss presented as her own work a piece of research that I produced, and she gave no credit to me whatsoever." This resulted in deep feelings of inequity, resentment, low morale and a sense of futility.

"The boss shouted at his assistant, `This is one of the most stupid mistakes I have ever seen.'" This was screamed outside of his office, at the assistant's desk, and was heard by at least four other people. The assistant burst into tears. She went into her boss's office the next day and threatened to quit if he ever humiliated her again in that manner."

In relation to an incident cited above, in B. Physical Actions, where a company owner made unannounced visits to an off-site facility and looked over people's shoulders as they were working, the case presenter noted: "Employees began to resent him tremendously and to dread his visits. They felt anxious and stressed by his behavior and the expectation that he might drop in at any moment."

In the case of the Project Head who hid in her office, the case writer noted, "Hardly anyone bothers to enter her office these days, except in matters of urgency. We feel, `What's the use?!'"

IMPACT OF INDIVIDUALS ON ORGANIZATIONAL ISSUES

This could include such matters as turnover, productivity, profit, and efficiency. Student case example: The turnover rate increased markedly after the appointment of a very intrusive and autocratic sales manager; employees stated that the reason they requested transfers or left the company was because of this sales manager's leadership style.

IDIOSYNCRASIES

What definitive behaviors set this person apart from other individuals? What peculiarities make this person distinctive? Actual example: "The company owner parked three expensive classic luxury cars in the company parking garage, near the entrance to the garage."

WELTANSCHAUUNG/PARADIGMS/ASSUMPTIONS

Human behavior is influenced powerfully by one's conception of reality, one's view of the world. For example, do case principals perceive entrepreneurial opportunities in the environment or do they see only oppressive problems? Do they "think outside the box," or remain fixated by artificial boundaries? Do they believe in the scarcity of resources and the perversity of nature or do they view the Universe as friendly? Are they nihilistic or optimistic?

ETHICS AND VALUES OF INDIVIDUALS

In one student case, a manager in an aerospace company ordered an employee to lie to the United States Navy, to assure visiting Navy officials that promised equipment would be delivered on time, fulfilling the terms of a contract the firm had signed with the Navy. Actually, the project was several weeks behind schedule.

LEADERSHIP STYLES

Using standard taxonomies of Leadership, case writers can indicate the styles employed by principals in cases. One such classification elucidates four categories: Autocratic, in which the leader makes the decision alone; Consultative, in which the leader asks for suggestions or reactions before implementing a decision; Collaborative, in which there is a 50/50 decision-making process; and Delegatory, where subordinates are empowered to make decisions.

CONFLICT-HANDLING MODES

When conflict resolution is pertinent, case writers may describe individuals in terms of their conflict-management styles.

ASSERTIVE	1. Competitive	2. Collaborative
	3. Compromising	
UNASSERTIVE	4. Avoiding conflict	5. Accommodating
	UNCOOPERATIVE	COOPERATIVE

POWER BASES

Do the individuals involved in the case possess and utilize any of the following Power Bases:

- Connection--the individual has alliances that provide power.
- Debt--people owe this person favors.
- Track Record--a history of successes gives this person power.
- Charisma--this person exudes high energy and attractiveness.
- Coercion/Reward--this person has power to punish or reward.
- Legitimate--title and authority give this person power.
- Expertise--this person's knowledge empowers.

MOTIVATIONAL DRIVES

A useful categorization of basic career-related motivations is McClelland's scheme of Need for Power, Need for Achievement and Need for Affiliation. In many cases, it is useful to note dysfunctional aspects of the three motives: (a) A win/lose, arrogant use of Power; (b) Failure to delegate because one's need for personal Achievement is so overpowering; (c) Weakened leadership due to an excessive need for Affiliation that manifests in a need to be universally loved--an impossible quest in management.

COMMUNICATION SKILLS

"Effective communication skills" usually appears at or near the top of lists of qualities essential for success in management. Many cases include or stress failures in communication, and it is useful to describe as specifically as possible, the communication behavior of case principals. For example, weak listening skills often loom large in cases, especially being judgmental or failing to pay attention. Also important are clarity, candor and accuracy. Linking with 2. and 3., above, Relevant Physical Actions and Actual Dialogue, cases are enriched when the communication problems are made vivid by describing verbal and non-verbal communication failures in detail.

ILLUSTRATIVE DATA FROM INSTRUMENTS

Organizational Behavior courses tend to include one or more psychological inventories or management style instruments that students complete as part of the course. Some Organizational Behavior textbooks now include inventories within the texts. This helps to develop a common vocabulary, categorizing types of behavior. One well-known, helpful inventory is the Meyers-Briggs Type Inventory, which includes the insightful dimensions of Introversion/Extroversion, Sensing/Intuition, Feeling/Thinking and Judging/Perceiving. The four styles developed in David A. Kolb's Learning Style Inventory have proven very useful in student cases in the "Human Behavior in Organizations" course. (The complete inventory is included in David A. Kolb, Joyce S. Osland, Irwin M. Rubin, Organizational Behavior: An Experiential Approach (Prentice Hall, 1995, 6th edition), pp. 46-58. These four dimensions affect decision-making and problem solving, both of which are frequent topics in case studies.

ACCOMMODATOR
Risk taker
Action-oriented
Implements decisions
May neglect planning

DIVERGER
Imaginative
Value oriented
People-oriented
May neglect follow through

CONVERGER
Expert in testing
Fact-oriented
Makes decisions
May neglect people

ASSIMILATOR
Scientific
Theoretical
Thorough in planning
May neglect action

CONCLUSION

There are at least fourteen methods that are useful for describing individuals in cases. It is unlikely that a case writer would employ all fourteen of the methods suggested above; such comprehensiveness would produce unwieldy and laborious cases. But using the most pertinent types of descriptions for each particular case will reveal vital information about key persons involved in cases and help case readers to grasp cases more clearly and vividly and to focus more pointedly on the issues to be resolved.

EFFECTIVE TEACHING METHODOLOGIES FOR TECHNICAL AND BUSINESS EDUCATION

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Abstract

The aim of university education is to help students learn while they are engaged in courses, and to continue the learning process throughout their lifetime, but in order to fulfill this mission, methodologies must be used to make educational experiences relevant and long-lasting. The best approach for goal is to develop *process skills*, by creating student-centered environments in which practical, hands-on methodologies, such as team tasks, case studies, simulations, role-plays, and business/education partnerships, are used under the direction of a teacher who facilitates and manages students' skill development.

KEYWORDS: Student-centered Learning, Leaching/learning Environments, Experiential Learning, Process Skills, Team Tasks, Team Work, Case Studies, Simulations, Role-plays, Business-Education Partnerships.

INTRODUCTION

The aim of university education is to help students learn while they are engaged in courses, and to continue the learning process throughout their lifetime. Brook [1965] puts it quite eloquently:

> *"Among the aims of university education must be included the acquisition of knowledge, but of greater importance are the development of the intellectual curiosity and the realization that the acquisition of knowledge is pleasurable, for the development of these qualities is a guarantee that the acquisition of knowledge will continue after the student has left the university."*

The learner is central in the teaching/learning process, and this leads to a shifting of responsibility from the teacher to the learner, regardless of the age of the student, or the setting in which learning takes place. In essence, students must become active learners, and teachers and students must enter into a cooperative process in which the goals of both parties must be the attainment of what is best for the student.

It is for this reason that "student-centered" teaching/learning environments are strongly supported by many educators, especially because of their ability to provide opportunities for students to learn to "do" things, rather than just learning to "know" things, which points directly to the recommendations made by the respondents of the survey conducted by the National Academy of Science [1995]. Based on comments solicited from more than 1,000 graduate students, postdoctoral students, professors, university administrators, industry scientists and executives, and representatives of scientific societies, they categorically state that "Courses taught via recitation do not help students learn". They further state that they:

> *". . . also believe that the effectiveness of these graduates could be enhanced through practical ("hands-on") experiences traineeships, functioning as a member of a (multidisciplinary) team, strengthened interpersonal skills, ability to communicate clearly the purpose (including the "strategic" value and relevance of the activity in question), and substantial knowledge of the business environment/culture (including project management fundamentals, time effort/budget deliverables, sensitivity to human resource concerns, safety, intellectual property, etc.)."*

When people *do* things under the direction of an experienced educator, they can experience using and applying concepts to solve real problems. This moves them from the abstraction of a theory to a practical application of that theory, and by doing so, internalizes the very essence of the theory. It also reduces the amount of time it takes to understand a concept fully. For example, a student can be taught how to calculate the weight bearing mass of a structure, but when he sits down to apply it to a real-world situation (like designing a multi-storied performance center), he will arrive at the point at which true learning takes place. Likewise, in a human resources class, he might learn that people are generally more receptive if you first orient them to the issues. But, he will not be able to find the way or the words to do this until he is placed in a real-life situation and is forced by necessity to find the correct way or ways.

Therefore, if one accepts the premise that the purpose of education is to prepare students to perform specific tasks in their personal or professional life, one must also accept a related premise that the performance of those tasks requires much more than technical skills, it requires the effective use of *process skills*.

Described by Schein [1987] and Sinetar [1988], process skills allow individuals to process information, interrelationships, and processes. Judson [1991] believes these skills are essential for managing changes within an organization. Specifically, he states that:

> *"Process skills rest on a knowledge of how results can be enhanced by careful attention to the ways in which they are pursued. This knowledge in turn grows out of a heightened awareness of what takes place in the realm of attitudes, expectations, feelings, and perceptions when two or more people interact either face-to-face or through written communications [p. 140]."*

Process skills can be categorized into three dominant skill areas, and each dominant skill area has its own subset of skills as described below:

Communication Skills

- Listening: clearly and precisely
- Communicating: verbal and written
- Reading and responding to behavioral cues
- Cross-cultural communication
- Making effective presentations
- Negotiating contracts and agreements

Management Skills

- Making business decisions (technical and general)
- Managing the process of change
- Managing and developing employee loyalty

Leadership Skills

- Strategic thinking
- Having vision and getting others to accept that vision
- Setting core values
- Consensus building
- Problem solving
- Dispute and conflict resolution

While lectures are an ideal way for teachers to transfer information and demonstrate concepts learned from their own personal experience, it is a poor medium for the development of process skills. Unfortunately, over 47% of professors say that they use "extensive lecturing" as *the* instructional method used in their undergraduate classes [Magner, 1999]. It is true that students do need to obtain the knowledge acquired by their teacher's years of experience, but this might be best transferred through the use of study materials in the form of textbooks or lecture notes with which students could take more time to analyze and digest.

So, if the exchange of information can take place outside the classroom, what can or should be done during classroom time? Clearly, it could be a time for question and answer, where students ask for clarification of points or topics. But, for the most part, the majority of the time that teachers and students spend together should be spent with the teacher providing opportunities for students to use the information obtained outside of class, and apply it to specific situations in order to develop and reinforce the skills they need to use in real-life situations. The main reason for this is that it moves the student's involvement up to the enactive level [Dale, 1969], thus making the learning experience more real and more memorable.

It also provides opportunities for teachers to be something more than just being a medium of information. They could interact more personally with students by describing their personal approaches to understanding a concept or methodology. In other words, by showing students how they learned and adapted a concept, students could learn to apply such strategies to their own situations. Also, teachers could heighten the level of their own professional expertise. By showing someone how to approach a problem, rather than just simply dictating the problem and possible solutions, the teacher himself can heighten his own understanding of his field in ways that he never could under a typical lecture format. And, more importantly, by concentrating on how to do things, teachers instill in students a future-orientation, one that leads to using lessons learned from past experience to solve problems that have not yet occurred.

There have been numerous systematic approaches to learning, either separate from or in addition to lectures. Postlewaite, Novak, & Murray [1971] found great success in combining lectures with independent studies. Keller [1968] found that a sequential set of self-study units could be an effective system for transferring information. In fact, he was so adamant about his approach that he questioned the necessity of teachers. Mahan [1967] used "Socratic-Type Programming" to develop sets of exercises made up of questions and answers related to student texts, in an effort to guide students through the process of acquiring and using information. In an effort to improve physics education, Baez [1971] noted the effectiveness of combining independent textbook reading, problem solving activities, and group activities.

Hills [1976] found that self-tests, library-based reference material, recorded lectures, tutorials, and texts, could supplement lectures and enable teachers to give smoother and shorter lectures, concentrate on difficult issues, and be more enthusiastic and excited about their subject.

Most learning, however, emphasizes mastery of the *known* and does not prepare learners for what they encounter in the real world: The *unknown*. And, for learners to become effective in their academic and professional career, they have to constantly address the issues of what they need to do in order to be successful. By far, the most effective method of teaching how to deal with the unknown is *experiential learning*. This method involves a process of evaluation and planning, identifying resources and strategies, and initiating and monitoring their plans to make sure that they are on the right track, and adjusting it if they are not [Walter & Marks, 1981; Cantor, 1946, 1953; Anderson, 1970; and Olton & Crutchfield, 1969]. In experiential learning, learners have the opportunity to become fully involved in the learning process. They can participate in all phases of a learning experience [Walter & Marks, 1981], and thus, the lessons become more relevant and flexible.

Obviously, a teaching / learning environment that allows learners to experience concepts and develop skills creates interesting challenges for teachers and students; but, it does not require major changes to curriculum or course materials in order to be implemented. All of the above could be accomplished by including the following methodologies (in addition to lectures) into academic programs:

1. Team tasks and projects

2. Case studies
3. Simulations and role-play
4. Business / education partnerships

The use of these methods allows learners to focus on processes, reasons, procedures, opinions, etc., for which there may be several correct answers, but only one will be the best match for a particular situation or the best solution to a problem, and that *one* can change radically depending on the circumstances. As such, teachers must identify specific issues that must be addressed and the skills needed to fully address those issues, and create situations in which learners can discuss the issues and practice the skills needed to address those issues. So, instead of simply giving a lecture on project management, a teacher might assign specific texts, which describe this subject, and give students a specific project to manage. During the process of managing the project, students will encounter specific issues and problems that must be resolved, and the actual process of resolving the situation under the direction of their teacher / facilitator, will allow them to develop the skills necessary to deal with problems in general, even if those problems are quite different from the ones that they had solved in class. This means that most of the student's time will be spent engaged in self-directed learning and research, in preparation to participate in tasks or discussions meant to develop the acquisition of specific skills, while internalizing concepts through the act of experiencing them.

TEAM TASKS AND PROJECTS

One of the biggest problems with educational endeavors is that from the learner's perspective, they are highly personalized. In other words, a person has to decide on a course of study and with his own motivation or the assistance of an advisor or mentor, take that study to a logical conclusion. People who are achievement oriented or who can handle and complete tasks easily do not have problems being motivated to pursue such endeavors. For those who are not, in many cases the charisma or interest of the teacher can provide the impetus to be motivated. However, the power of a group at motivating its members is irrefutable. As noted in Hubbard [1999], and discussed by Swap & Bedau [1984], groups can have an overwhelming influence of their members, sometimes forcing them to do things or make decisions that they would not make as individuals [West, 1996]. This force can be harnessed for educational purposes and used to increase and enhance the level of participation of the learners.

It is important, however, to transform groups into teams. In comparing groups to teams, Katzenbach & Smith [1993] point out seven major differences, chief among them is the nature of teams to work collectively to do real work under realistic conditions. This is precisely what must occur in real life, and therefore, students must learn to become real-life team members. Teams working on tasks and projects are able to:

1. Discuss and utilize the basic concepts of the course to deal with issues.
2. Learn how to work collectively to solve problems.
3. Develop their communication and negotiation skills.
4. Learn how to handle disagreements, disputes, and conflicts that might arise.
5. Learn how to receive feedback and deliver it effectively to peers, subordinates and superiors.

Having students work on team tasks and projects allows them to practice the technical, communicative, and interpersonal skills that they need in their professional career, so that when they arrive at these situations in the future, they will be in a much more confident and competent position to handle them correctly. In addition, in their interactions with teachers, they will learn how to observe processes and provide feedback, which can be directed towards individuals, teams, or groups.

CASE STUDIES

The case study method can be an extremely interactive way for people to practice career skills before they actually start working. McNair & Hersum [1954] found that case studies provide situations in which students can be trained to act in appropriate ways, rather than simply knowing information.

In addition, case studies are an excellent way to generate hypotheses [Davey, 1991]. They are, therefore, used to simulate the decision-making processes of real world challenges. Participants discover the important facts, discuss actions they would take under specific conditions, and formulate reasons for taking such actions. Datta [1990] identified six types of case studies:

- *Illustrative Case Studies* are descriptive, and utilize one or two instances to show what a situation is like. They help students interpret data, and serve to make the unfamiliar situations more familiar.
- *Exploratory Case Studies* are condensed case studies, undertaken before implementing a large-scale investigation, in which considerable uncertainty exists about program operations, goals, and results. They help identify questions, select measurement constructs, and develop measures.
- *Critical Instance Case Studies* examine a situation of unique interest, and are particularly suited for answering cause-and-effect questions about a specific situation, under specific conditions.
- *Program Implementation Case Studies* are useful when there is a concern about implementation problems that might be encountered when dealing with extensive, longitudinal reports.
- *Program Effects Case Studies* can help predict the probable impact of programs and provide ways to infer reasons for their success or failure.
- *Cumulative Case Studies* aggregate information from several sites collected at different times. The cumulative case study can be retrospective, collecting information across studies done in the past, or prospective, structuring a series of investigations for different times in the future.

Case studies are ideal for incorporating lectures, small group discussions, audio-visual methods, and process observation. The most difficult part of using case studies is finding ones that fit the specific learning objectives of a particular group. This is one reason why many teachers who use cases, do not use them exactly as presented in a text. They may omit certain sections, add supplemental materials or otherwise alter or modify a particular case in order to make it useful or relevant for a particular group.

The central element in any case is the fact that they are as engaging as detective stories, but they are incomplete. Students must, therefore, use their "willing suspension of disbelief" [McNair, 1971] to help them find real life solutions to artificially created situations. Another feature of case studies is that they usually involve making business or technical decisions. Teachers could use this feature to develop group discussion or participation skills, show students how to present and defend ideas, and guide them toward the best way to conduct informal and formal discussions and meetings.

One way to do this is to assign specific roles for the case study discussion. Not to be confused with the formal practice of *role-playing* (which will be described in the next section), this type of "role" seeks to develop a particular skill within a group. For example, in addition to the technical elements of a case, teachers might use it to reinforce the "meeting leadership" skills of the students. In this situation, one student might be assigned the "role" of leading the discussion, not to "play the role of a manager of a firm, but to actually lead the group through a discussion of the case the same way that the teacher might. This student would have to develop an agenda, lead the discussion, and summarize the decision, with the teacher providing feedback as to how well the technical issues were resolved and the "meeting participation" skills of the student leader and the other students.

Sawyer-Laucanno [1987] and Harvard Business Review offer excellent examples of case studies on a wide variety of topics. In my teaching, I generally assign a team of students to analyze the case, choose specific issues for discussion, and lead the class in a discussion about those issues. I have found this method invaluable in building the technical expertise and process skills of students, and after being hired, they have commented that they felt much better prepared to handle the demands of their professions because of the training they received.

SIMULATIONS & ROLE-PLAYING

Moreno [1953 & 1964] found that action and acting, spontaneity and creativity, and a focus on the immediate environment generate a powerful learning experience for the participants. And, Dale [1969] found that simulating a real life experience is almost as good as experiencing the real thing in terms of its effectiveness at producing memorable and meaningful learning experiences. In essence, this lowers the level of abstraction of a case study by placing it in a *context* in which those analyzing the case will act as if they are facing such a problem in a real life setting. So, instead of describing what they would do (as they would in a case study discussion), they actually behave as if they are in the situation, and they actually *do* what they think is best. Here, the importance of non-technical skills are as important and sometimes more important than technical skills, because in real life situations, a person's ability to be persuasive is, unfortunately, taken more seriously than his ability to be technically correct. So, in simulations, interpersonal skills are essential for accomplishing a specific task or solving a particular problem as it is in real life, and the teacher must provide feedback about that process in order for the simulation to be effective.

A practical application of this methodology can be found by analyzing a particular case study, like *Hanover Public Systems* found in Sawyer-Laucanno [1987]. This case involves a Taiwan subsidiary of an American firm that has to convert from manufacturing multiple product lines to just concentrating on a few of them. The 38-year-old general manager is an American of Japanese ancestry who must make specific changes in order to save the firm from financial ruin. Certain conflicts arise between him and the Chinese management team due to his handling of the changes and their inability to see the validity of making those changes. This case presents an ideal opportunity for students to practice change management and conflict resolution skills. Students could be assigned roles to play, and would be evaluated on how well they achieve their objectives. Thus, it gives opportunities to demonstrate and/or practice knowledge and skills they have learned [McKeachie, 1969 & 1974], and enables them to illustrate principles related to the subject under consideration [Maier, Salem, & Maier, 1957].

To prepare students to appreciate the concepts of change management, teachers could announce a specific change to their course and ask the students to analyze their reactions, similar to the technique used by Judson [1993]. After going through this process, students will have a first-hand experience of changes and how they affect people and organization. If done properly, they will also develop the skills needed to understand the impact of changes, and by participating in a simulated change management case study like *Hanover*, they will be in a better position to handle these kinds of situations much more effectively.

BUSINESS/EDUCATION PARTNERSHIPS

Businesses and schools have had a relationship with each other since the late 1800s, and their relationship formalized into partnerships in late 1970s. At first, educational partnerships were created by school systems to "foster school-community cooperation, provide incentives for students, supplement curriculum and staff, and obtain equipment" [Clark, 1992: p. 2]. And, businesses gained improved public relations and enhanced community image from these relationships [Grobe et al, 1993].

There are basically two types of partnerships: One-to-one and multiple partners. In the one-to-one institutional partnership, the needs of a school and/or a business determine the extent of the agreement. Traditionally, the business is the benefactor and the school is the beneficiary. With this arrangement, schools often receive up-to-date equipment, incentives for student attendance and scholarship, and opportunities for students to learn about the real-world application of knowledge and skills [Lankard, 1995].

Partnerships can be expanded to involve multiple partners, and in this case the agreements become more complex and the benefits more far extensive. The schools and the businesses are full partners in these agreements, which formally identify "each partner's responsibilities and expected outcomes and imply a reciprocal commitment between or among partners" [Clark, 1992: p. 2]. The involvement of a number of agencies to deal with multi-service projects is an ideal situation. Some of these projects include dropout prevention, employability training, and workplace literacy. An example of a cooperative agreement between the public school system and local businesses, universities, and labor is the Boston Compact, in which partners work cooperatively to provide high quality education for all children in the Boston school system [Clark, 1992]. Another example is the Minneapolis Youth Trust, which is a collaborative of major employers, city and state agencies, social service organizations, and the public schools.

Not all Business/education partnerships fall into the above two categories. The Hungarian Round Table of Industrialists, for example, is a non-profit organization that promotes the development of higher education and university-industry cooperation. They award scholarships in order for students to meet job market requirements and assist them in finding career opportunities. They also initiate dialogue among representatives of business, higher education, and government, and initiate and support projects that assist the cooperation between businesses and universities.

Partnerships focus on specific issues, such as classroom teaching and learning [Kubota, 1993], vocational education program development (like the automotive program partnership between Harbor College and Hyundai), apprenticeships, and work experience programs [Ingles, 1994].

Such partnerships not only fulfill the recommendations made by the National Academy of Sciences, et al [1995], but they also bring a very practical element to the learning experience by making it directly applicable to current and future career goals. While team projects, case studies, simulations, and other classroom activities are excellent ways to prepare students for what they will face in real life, they can only go so far. Working in a business, technical, or other professional environment, such as those available in business / education partnerships is the ultimate way to develop skills that are directly related to "doing things" in a real situation. As such, students, either on their own or with the assistance of their educational program must seek out and participate in as many business / education partnerships as possible. A simple way is to participate in internship programs offered by firms in their prospective field.

SUMMARY AND CONCLUSIONS

In summary, in order to fulfill the primary aim of higher education, teaching methods that make educational experiences relevant and long-lasting must be used. The best approach for this is to create a student-centered environment in which the goals of the student dominate the learning experience. The learning experiences must be enhanced by practical / hands-on methodologies and activities, in which learners work on teams to develop technical and process skills simultaneously, and have opportunities to practices those skills in real life situations.

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MAKING SIMPLE, BUT EFFECTIVE PRESENTATIONS

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Abstract

Because of lack of presentation skills, many presenters are tempted to rely solely on display technology and other devices to do the presenting for them, rather than relying on simple, but effective methods for making effective presentations. Contrary to current practice, the reliance on the presenter as a medium of information and the presenter's use of simple techniques can make any presentation an interesting and memorable experience.

KEYWORDS: Presentation Skills, Presentation Techniques, Enactive Learning Techniques, Stagecraft, Stage Movements, Lighting, Lecture Aids, Lecture Positions, Visual Aids, Aspect Ratio, Contrast and Gray Scale, TV, Viewing Angles, Audience Capacity, Public Address Systems, Handouts, Audience Involvement, Rule of Proximics.

INTRODUCTION

Making effective presentations is one of the most important jobs a professional will do during his or her career. Unfortunately, many professionals give poor presentations because they are unaware of the importance of discourse factors [Moffet, 1968; Hubbard, 1999], or because they are unaware of the importance of a presentation. Giving a dramatic presentation is not only a way in which the presenter becomes more knowledgeable, it is also one of the most effective ways that person as an observer remembers what he has seen and heard. According to Dale [1969], particular experiences have a direct impact on learning and memory (see Exhibit 1), so as the level of abstraction is reduced, the learning experience is benefited.

From the above, it is easy to see that in order to make an effective presentation, presenters should strive to get the level of their presentation as high up on the scale as possible. The following steps will make presentations more "enactive", and thereby more memorable.

EXHIBIT 1
LEVEL OF ABSTRACTION AND MEMORY

Level of Abstraction	Activity	People remember
Enactive (doing)	Doing the real thing Simulating a real experience Doing a dramatic presentation	90% of what they say as they do something

	Doing a site visit	70% of what they say or write
Iconic (observing)	Watching a demonstration Looking at multi-media exhibit Watching a film or video	50% of what they hear and see
	Looking at a still picture	30% of what they see
Abstract (symbolizing)	Listening to a lecture	20% of what they hear
	Reading	10% of what they read

THE PRESENTER

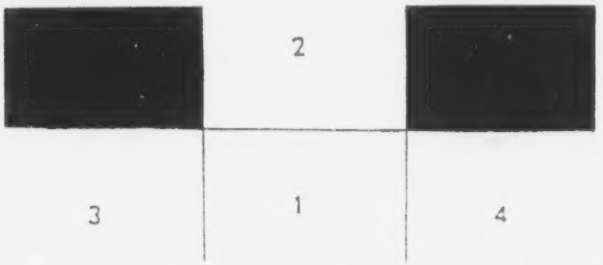
The first step in making an effective presentation is for the presenter to think of himself as a "performer", and in that role, he or she must give a live performance as an instructor, a narrator, an advocate, etc. depending on the purpose of the presentation. For all practical purposes, the presenter "is" the medium of information and activity, and he or she must perform effectively in order for the presentation to be successful. But, this does not mean that a presenter should try to be someone or something that he is not. Audiences can sense the difference between poor acting and strong performance, and this can make them less interested. Presenters should strive to be enthusiastic and energetic! Successful presenters know how to create an exciting and responsive atmosphere.

In addition, presenters should avoid distracting mannerisms, like biting their finger nails, twisting their watch, or verbal tics, such as inserting "um" or "you know" at every pause. Audiences find such mannerisms very annoying, and sometimes this could cause them to stop listening to the message and become uninteresting. Media advisors strongly suggest videotaping a short session of the presentation, which can be an effective aid to pinpointing the problems and correcting them.

PRINCIPLES OF STAGECRAFT

A presenter's impact on an audience can be strengthened by observing a few basic principles of theatrical space values. Presentations are given in places like conference halls, classrooms, etc., and in each of these places, there is a place that functions as a "stage". A stage has "strong" and "weak" areas, and depending on what is to be emphasized during a presentation, a presenter will place himself in one of these areas. The stage can be divided into six sections, as shown in Exhibit 2. Note that the front-center area is stronger than the back and either side. The strength of the areas is shown as they are numbered in Exhibit 2.

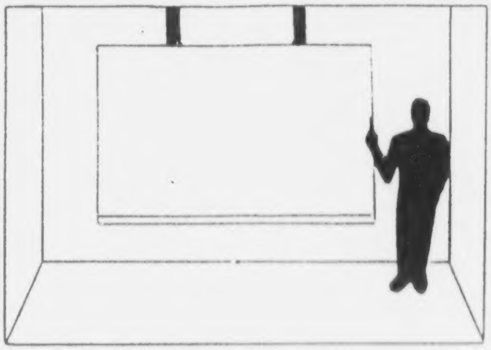
EXHIBIT 2
THE STAGE



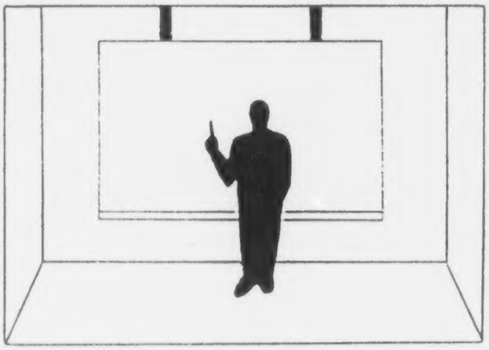
Different parts of the presentation area have different strengths, with the front-center (#1) being the strongest and the rear areas (the black corners) the most unappealing

The presenter can use these strong and weak areas in order to achieve a good psychological advantage by placing himself in a particular position in order to feature the dominant points of a presentation (see Exhibits 3 and 4).

EXHIBIT 3

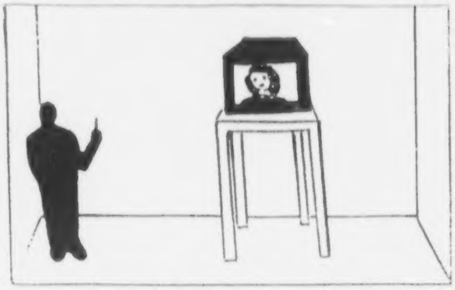


Because of its placement in the center, the screen is in a stronger position than the presenter.



Here, because of his placement at front center, the presenter is more dominant than the screen.

EXHIBIT 4

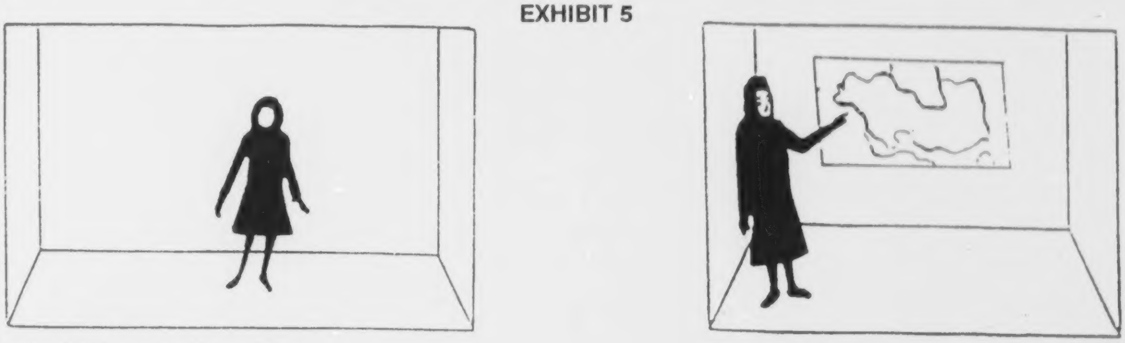


Here the presenter is in a moderately strong location, but the display table, at the front center, takes precedence.

BODY POSITION

A presenter who establishes and maintains eye-contract during the presentation is able to hold the attention of the audience and make the presentation more interesting for them. Therefore, facing the audience full front is the strongest position. A presenter should take this position when he is the center of attention the three-quarter position and the profile (showing only half the face) should be used minimally. These positions are usually used when an object or text is the center of attention. One should never turn one's back to the audience because not only is eye contact disconnected, but also this act is considered very rude in many cultures. So, even if you use a screen to show visuals by computer or overhead projector (OHP) during your presentation, you should place yourself back almost to the level of the screen (in the weak areas to the right and left), and use the hand closest to it to point to specific items. This way, you will maintain a three-quarter or full-front position with the audience (see Exhibit 5).

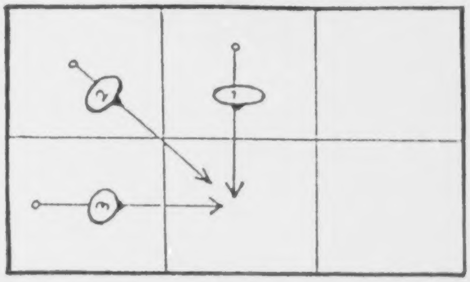
EXHIBIT 5



The full-front body position
is the strongest body position.
point.

Three-quarters position is the second
strongest body position.

EXHIBIT 6
STAGE MOVEMENTS



Moving from sides and corners give strong emphasis to the presenter (please note the numerical order of importance).

MOVEMENT

Eyes are sensitive to movement. For this reason, any nervous gestures should be avoided; they distract the audience. But, movement can be used to emphasize important points. Experienced presenters often start a new topic by pausing and changing their position, possibly stepping to a different part of the "stage" area. As illustrated in Exhibit 6, the strongest movement is toward the strong front center of the "stage" from the back and corner areas. The weakest movement is moving away from the front center toward a back corner.

Movement to and from strong areas is also important when two or more people are making a presentation. In this situation, the person who is speaking or demonstrating a point, should move to area 1, and the others should move to the weak areas in the back corners. And, when it is time for one of them to present, the movement of the person in area #1 moving and exchanging positions with someone in one of the weak areas gives a visible transition from one topic or speaker to the next.

Of course, it is difficult to use movement during a panel discussion or other similar group presentation. However, the use of gestures (not the nervous type of gestures mentioned above) focuses the attention on the speaker and makes it easier for the audience to stay involved in the presentation.

VISUAL AIDS

Visual aids include graphics, charts, tables, transparencies, slides, etc. Transparencies and visuals are displayed using a computer or OHP. As a support to the presentation, visual aids can be extremely valuable at engaging the audience. However, instead of using visual aids to complement what they are saying or doing, many presenters use visual aids as the focus of their presentation. They do this by placing their visuals in the most dominant position on stage (area #1) and placing themselves in a subordinate position, sometimes even standing in a darkened room. In essence, they make their presentation a media show. Aside from putting their audience in the "abstract" range (see Exhibit 1), this type of presentation is very boring (unless of course, the purpose of the presentation is to demonstrate the technology of the media).

In addition, presenters can often create problems when they don't observe specific conventions related to visual aids.

CONTRAST AND GRAY SCALE

Contrast in visuals should be strong, but not extreme. Large areas of white should be avoided because they produce glare. Although the human eye is sensitive to many shades of gray, placing non-contrasted information too closely together makes it difficult to see or read. It is easier to read black lettering on a light background, than it is to read light lettering on a dark background.

DETAIL

Complex, cluttered illustrations or lettering are difficult to understand. One way to avoid problems is to keep the following in mind:

- Choose simple, bold, well-spaced, and well-defined lettering.
- No more than 8 words should be used, if combined with an illustration.
- Outlines and list should be limited to 5 lines with no more than 5 words on each line.
- Letters should not be smaller than 1/25th the height of the screen

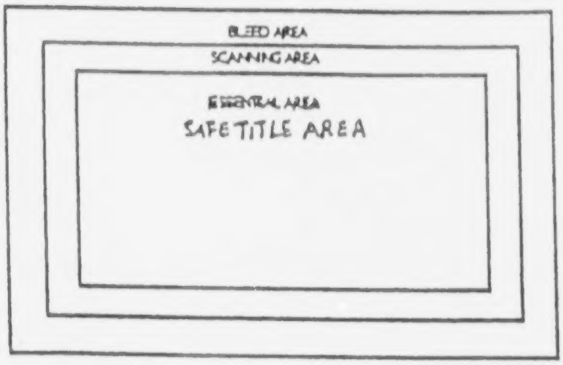
DISPLAY TIME

Visual material should be displayed on the screen long enough for the audience to read it twice. Turn off the projector after that time. If you must include a long list, you should display it in sections by placing a sheet of paper over the area that is not being discussed, and gradually lower the paper so that succeeding parts of the graph are shown.

ASPECT RATIO AND FRAMING

If you are creating a video program as your instructional material, it must conform to the 3:4 aspect ratio. This is the proportion of a TV screen, in other words, three units high and four units across. Within this space, there are three main areas: bleed area, scanning area, and essential area (see Exhibit 7). For proper framing, all-important material should be placed in the essential area or safe title area. Nothing should be placed in the bleed area, and only insignificant parts of pictorial material should touch the borders of the scanning area. If using an OHP, you do not have to be concerned about the horizontal aspect ratio, but you should make sure that your material is properly framed.

EXHIBIT 7
FRAMING GUIDELINES



Bleed area, scanning area, and essential area. Constructing a simple framing guide for graphics is often very helpful.

CONTROLLING AUDIENCE FOCUS

One of the qualities of working with an OHP and other projection devices is that the presenter could maintain eye contact with the audience. People naturally focus on the brightest spot on the stage and because you need to control your viewers' attention as much as you could and you do not want to confuse them by unrelated images on the screen, you must turn off your projection equipment before your continue with another topic.

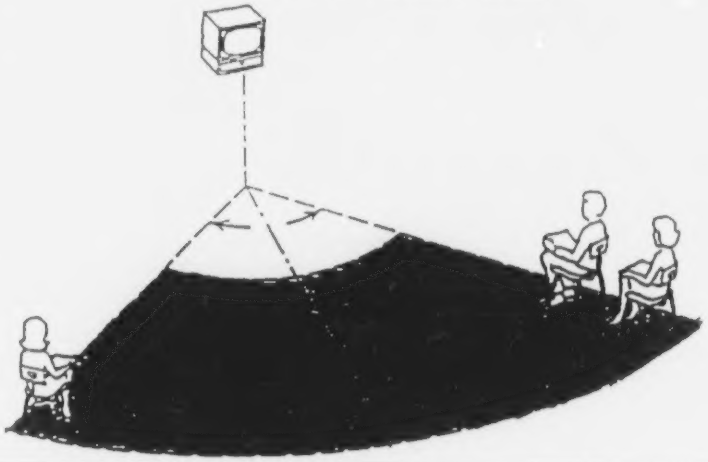
USING A TV

Using a TV presents its own sets of problems. First of all, TV is the medium for showing movement and action, so you should avoid using it to show still pictures. Second, because of the size of the TV screen, placing the TV in the correct position is vital to the effectiveness of your visuals. In addition, size also limits the number of people in the audience. The correct position depends on viewing angle and audience capacity.

VIEWING ANGLE

The horizontal viewing angle is the angle from which the audience sees the TV. The maximum angle recommended for viewing most material is not more than 45 degrees from the axis. If you need to have an absolute minimum of distortion, an angle of 30 - 40 degrees should be used. (see Exhibit 8.) The vertical viewing angle should be about 30 degrees from the eye level of the audience.

EXHIBIT 8
HORIZONTAL VIEWING ANGLE



AUDIENCE CAPACITY

For the most part, audience capacity is determined by the size of the TV screen and the view angles. The following table is a useful guide.

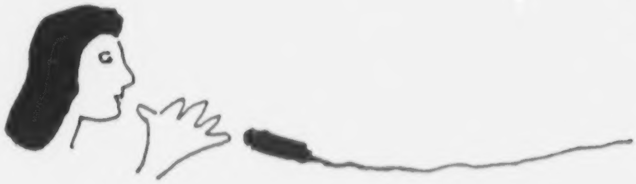
Size of TV Screen	Maximum Viewing Distance	Maximum Audience Capacity*
17 inches	14 feet	21
19 inches	15 feet	24
21 inches	19 feet	39
23 inches	20 feet	42

*Assuming that each person occupies 30 inches, and there are 36 inches between rows.

TONE OF THE PRESENTATION

A relaxed atmosphere can make a presentation more interesting no not matter how old the audience or the seriousness of the subject. This type of atmosphere also increases "suggestibility", a state that is conducive to rapid, effective learning. Humor can also be very effective at adding interest and involvement to a presentation. A joke, a humorous phrase, or a comment poking fun at oneself can help build receptiveness. Obviously, humor should flow naturally from the situation and should never be forced. Also, negative humor, such as sarcasm, poking fun at someone, or ethnic jokes, will probably offend your audience, and should not be used.

EXHIBIT 9



Distance from mouth to microphone.

PUBLIC ADDRESS SYSTEMS

The use of a public address system (PA) is vital for making presentations for large audiences. But what determines when a PA should be used? It is possible to use one's own unassisted voice for groups up to 60 people depending on the size of the room. Of course, there may be circumstances for which it is necessary to use a PA even for smaller groups (i.e., large room capacity, voice failures, the presentation is to be recorded), but it should be avoided because the effort exerted to make oneself heard and understood, it also provides the energy and enthusiasm needed to keep an audience engaged.

In situations where it is necessary to use a PA, a sound technician or engineer will more than likely be responsible for making sure the "system" works. However, the presenter must have a basic understanding of how he should interact with the system. There are two point of importance: distance from the microphone and testing level.

The distance from the microphone to the mouth is critical for maximizing the effective use of a PA. A simple way to determine this distance is to fully open and extend your hand (Exhibit 9). The distance from the tip of the thumb to the tip of the index finger is the correct distance, and this distance will be different for each person depending on the size of the person. This distance allows the presenter to "project" enthusiasm for the subject, without causing distortions to be amplified.

Testing level ("sound check") is also very critical. Using the distance described above, the presenter should speak in his normal "public" voice, the voice level used to address a large group of people rather than the voice level used for talking with one or two people. Care should be taken not to exaggerate this voice level by shouting, and conversely, one should not speak too softly, because the purpose of the sound check is to avoid any distortions during the presentation.

LIGHTING

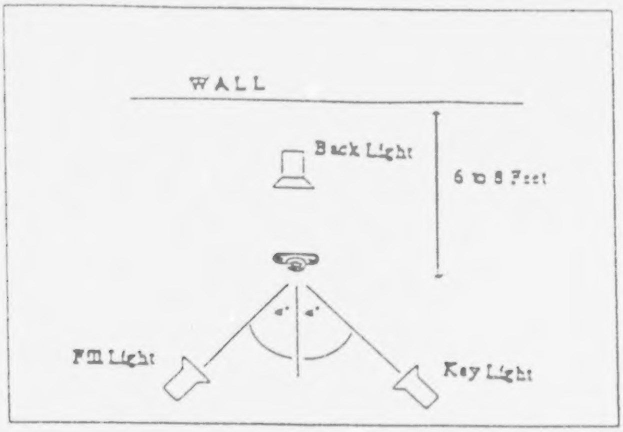
When giving a presentation to a large group of people in a large conference room, the use of lighting is very important. Many such places have personnel who are responsible for lighting, and may be classified as "lighting technicians" or "lighting engineers", but they are usually responsible for just lighting of the facility, and not "stage" lighting for the presenter. Too much or too little light causes the same problem: it distorts the appearance of the presenter and makes it difficult to see him. Because the presenter should be the focus of the presentation, and poor lighting makes it extremely difficult to see the presenter, it is, therefore, important that presenters have an idea about correct lighting.

According to Sony Corporation [1988], the most recommended lighting is the Three-Point Lighting System (see Exhibit 10), which uses three main lights to highlight the presenter so that he can be easily seen. The Key Light projects from 45 degrees above and to the front left side of the presenter. It functions are a hard primary light which simulates the sun. It creates hard shadows that make a dramatic effect. It is the strongest light (usually 1000 watts), and determines the intensity of the other lights.

The Fill Light projects from 45 degrees above and to the left side of the presenter. It functions as a secondary, diffused light, which softens and reduces the shadows created by the Key Light. It adds depth and form to the face, and is usually half the intensity of the Key Light.

The Back Light is very similar to the Key Light in that it is a hard primary light that is usually the same intensity of the Key Light. It projects from 45 degrees above and behind the presenter, and adds dimension and depth. It separates the presenter from the background, by placing a highlight on the hair and shoulders.

EXHIBIT 10
THE THREE-POINT LIGHTING SYSTEM



SYNCHRONIZATION

Synchronization of the voice-over, music, or sound effects with visuals is the most important key to a pleasant and successful presentation. If the audiovisual presentation requires live voice-over, arrange a script that shows all the visual and sound cues very vividly, and make sure to rehearse it before the presentation to the point that your projectionist becomes very comfortable with it. This will prevent disturbing and unprofessional signals like, "Next slide, please". If no such script is available, arrange ahead of time for signals that will alert the projectionist when to advance visuals. A nod of the head or a hand gesture will work quite well.

COMPLEXITY OF EQUIPMENT USAGE

This should serve as a lesson to all presenters. Using visual aids or devices during a presentation can help make the presentation more interesting. However, the use of more than two forms of equipment, or devices that are very complex and hard to use can lead to a disaster, because instead of concentrating on the message, the presenter and the audience are forced to put their attention on the media.

AUDIENCE INVOLVEMENT

One of the best ways to make a presentation "enactive" is to involve the audience in the process. This could range from simply asking interactive questions, to actually getting the audience to do something. In his seminar on *Making Changes Successfully*, which was held in various locations throughout Hungary in 1993, Judson [1993] made an announcement that changed the agenda of the meeting in an effort to dramatize personal responses to changes. That single "enactive" activity made such an impression on the audience that for months after the seminar, people who had attended still remembered the effectiveness of that announcement.

In addition to making statements that somehow dramatize a point, presenters can engaged the audience in other ways, such as having them break up into smaller groups and work on group projects or discussions that are later shared with the entire audience. Of course, this may be difficult with groups numbering more the 60 or 70 people, or depending on the configuration of the venue, but every effort should be made to find ways to engage the audience in the process so that they will remember as much as possible.

RULES OF PROXIMICS

Depending on the room and the nature of the subject, the presenter may need to approach the audience in order to add a "personal" touch to the presentation or make them more enactive. However, in all cases, the rules of proximics (distances between people) must be kept in mind.

1. The Intimate:This distance ranges from skin contact to 18 inches. It is sometimes called the "Madonna and child proximic" because this term emphasizes the intimacy involved. Usually, a presenter should not get so close to the audience that it is in the intimate range.
2. The Personal:Ranging from 18 inches to 4 feet (approximately an arm's length away), this proximic is usually reserved for friends and family members. Sometimes, it may become necessary for the presenter to be in this range, but because this range may cause problems in cross-cultural situations, presenters may wish to avoid it.
3. The Social:At a distance of 4 - 12 feet, this proxemic is more formal than personal, and is therefore the recommended range for making contact with members of the audience. Generally people in formal situations are more comfortable interacting in this range.
4. The Public:In many presentations, a person who is held in high esteem may be in attendance. These people could be the chancellor of a university, the president of a firm, a high-ranking government official, or some other "public figure". In this case, the public proxemic ranges from 12 - 25 feet, is the most formal and detached proxemic, and because of the distance, it is considered acceptable for people to talk louder.

SURPRISES AT THE END

Plan a presentation that has fun and entertainment in mind. Unexpected and surprising endings can make a presentation memorable. If you are giving a presentation about your company, give a sample of your product to the audience at the end. If you offer a service, invite your audience to use your services and offer them a "special" discount.

In any case, find a way to make a nice treat at that end. Most of us remember our last encounter with a person, so by making it as pleasant as possible, presenters can be assured that their presentations will be remember and the content will be used.

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POWER FRAGMENTATION AND STRUCTURAL INERTIA THE UNIVERSITY OF SEVILLE IN SEARCH OF CHANGE

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Abstract

This paper describes a case about the transformations taking place at the University of Seville from an organization standpoint. The University, with more than 85.000 students, is immersed in an innovation process in order to achieve higher competence levels. Experience associated to quality management provides a privileged framework for the analysis of strengths and inertia affecting change. We reflect on the development and exhaustion of the model and on two challenging and polemic approaches: the contract-program and quality accreditation. Finally, we also point out the actions designed by the Vice-rectorate of Quality contributing to the implementation of a change strategy.

KEYWORDS: Organizational inertia, external and internal forces, change strategy, contingency approach, quality plan, quality assessment, European Union, University structure.

A UNIVERSITY OF GREAT SIZE.

The University of Seville is the third largest in the State of Spain with 85.938 students, of whom 56.261 enrolled in Faculties and Higher Technical Schools; 15.812 in Colleges; 3.835 in ascribed institutions and 10.030 in the Language School.

The number of higher level degrees offered is 68, distributed in big areas: Medicine, Humanities, Engineering, Sciences, Law and Economics. In addition, there are 105 biannual programs of doctorate and 120 courses at Master or Expert level for postgraduates.

In order to cover educational and non-educational services rendered by the University, the staff is also important. The number of lecturers at the University of Seville is 3.533. From this number 1.845 are public officials and 1.688 are not. The teaching staff of the University of Seville is distributed in different categories as follows: 349 University professors; 79 College professors; 1006 Titular of University lecturers; 411 Titular of College lecturers; 1.224 Associate lecturers; 281 Associate Doctors; 71 assistant University and College lecturers; to whom some more teachers of special categories must be added.

The University has 110 Departments at present. Departments are directly responsible for education and research.

The University of Seville has a consolidated research infrastructure, which is moreover gradually increasing, just as it also has an already old tradition and a considerably high quality level. The approach between the University and firms can be observed in covenants and contracts. The contracts signed by Departments have supposed an amount of 966 million pesetas.

The Non Teaching Staff is made up of 1773 employees at present, 925 are public officials and 848 have labor contracts.

POWER DISTRIBUTION AT THE UNIVERSITY AND MANAGEMENT.

At the beginning of the 80s, the Spanish Congress approved the Law of University Reform, which provoked a strong shock at all Spanish universities. The Law shook up from their basis the University's working and decision making. In essence, the Law originated that decision making, of any type and at all organizational levels, be carried out through collective organs instead of unipersonal ones as it had been working until then. So now it is not any more the Deans, Directors or the Rector's Team to decide but the Senate, the Government Board, the Faculty Boards, or Councils of Department. Power is distributed and passes from the people in charge to the corresponding assemblies.

This change goes beyond democratization by the election of the highest responsible University posts. Since this Law, also Deans, Directors of the Institutions and Heads of Department are elected in institution or department assemblies, absolutely independently from the Rectorate or the University Senate. These assemblies are made up approximately by a 60% of lecturers, a 30% of students and a 10% of administrative and service staff, at all University levels. Even when a small Committee is formed for specific issues (for example, the reform of a study plan), the proportion of representation is maintained.

This way, during some years universities had to make great efforts of adaptation that affected work by deep changes.

At the highest level of the decision-making chart there is the University Senate made up of 350 members. The Senate elects the Rector and approves most of the decisions made by inferior organs. Immediately below there is the Government Board made up of 80 persons and presided by the Rector. This is the essential decision making organ of the University since inferior organs make non-executive decisions that must be remitted to the Government Board, the organ that can change, reject or approve them.

The Institutions are responsible for the Degrees imparted and between their essential functions there are the creation and reform of study plans, the coordination of the Departments with teaching at the Institutions, and the management of installations and services. The Dean is responsible for the Institution and is elected by the center Board that usually has 100 members.

Departments, created by the Law of University Reform, had not existed before and their functions were carried out by the Institutions; they are responsible for education and research. The initiative of contracting lecturers raises at the Departments, which impart teaching at different Institutions. The Director is elected by a Council formed by a number of members between 40 and 150.

The essential part of financing of the University of Seville proceeds from the Regional Government that also fixes the tuition fees students have to pay. This is why, wishing to control financial aspects or essential decisions of financial repercussion, public powers created a Social Council, whose chairman is appointed by the regional government and whose composition is different from the one pointed out for the rest of university organs. This Social Council fundamentally studies and ratifies the annual budget presented to the University and the creation of new degrees and new institutions.

It is evident that Spanish public Universities have become political organizations, in the sense given by Mintzberg in his work "Power in and around Organizations" [Mintzberg, 1983] and, as a consequence, they are organizations that are very difficult to govern since in order to approve any decision it is necessary to have enough votes and, sometimes, dealing with decisions that go through different successive organs, it is indispensable that in each organ they have been previously approved in order to follow towards the superior organ. Thus, decision making is very slow and the possibilities of failure for an initiative are higher.

Nevertheless, there are two corrective elements that reduce most negative effects of the organizational structure. First, the persons in charge, without any apparent power, have a high capacity of influence since they dominate essential parts of the decision making process just as the information and the capacity of initiative for their actions. It is fundamentally the proposals that have been previously elaborated and studied by managers to reach collective organs. Second, managers have been elected by votes, which represents the support of most of the collective and this support hardly changes with each decision. Third, the so called "university spirit" is deeply rooted in the members of the University of Seville, who feel the weight of an old tradition and culture linked to their university institution.

DIMENSION AND AGE AS CONTINGENCY FACTORS

Age undoubtedly marks the structure and operating of the University of Seville. As years go by, an organization learns more and more about how to adapt to its environment, and the university organization tries to perpetuate the fruits of the learning formalizing them; it establishes normative operational procedures and standardizes the reports on the organizational performance. This way, antiquity takes to formalization of behavior,which is proven by the existence of abundant norms and rules that, nevertheless, does not reach the standardization of tasks or outputs. This apparent contradiction also has its origins based on tradition. The University as a center of wisdom has always despised mercantile issues, and therefore everything related to them. Organization based on the principles applied to private firms has simply proven unacceptable. The word 'control' has always got on bad with the university sense, the only accepted control has been that of legality. All is correct while rules or norms established by some legal way or collective organ are not unfulfilled. However, the control of tasks or results has been considered as a loss of freedom, a restriction to freedom and creative thinking, a doubt about the dedication and determination of lecturers in their job and about the compromise of public officers (both lecturers and administrators) with their institution.

A well-known phrase, "structure reflects the era when the sector was founded", is reasonably applied to the University of Seville. Traditions, created interests and indoctrination solidify the structure around a series of values, an ideology or conception about the role of the University in society. Possibly the most decisive influence on behavior and actions and on the comprehension of many phenomena, apparently difficult to understand inside a University as that of Seville, is found in this question. The concept of "structural inertia" [Hannan and Freeman, 1989] is undoubtedly defining the University, as this institution does not keep unmobile but it only moves forward on tracks traced many years ago. Getting a large institution out of this dynamics is practically impossible and will overwhelm anyone to try it. In these situations of inertia, changes are only possible opening ways in other directions, and at the same time, smooth and adequate corrections of the course to be able to take the new tracks without risks. The existence of structural inertia is something more than an interpretation or a mere reflection on the situation of the University, the rector's team, deans and heads make continuous references to inertia as an explanation. Structural inertia is spoken about with a mixture between the fatalism of not being able to change specific questions and the proud of belonging to such a well-established institution in traditions and stable behaviors.

ENVIRONMENTAL CHANGES

The traditional environment of the University of Seville has been placid in general, with moderate changes. The constant growth of the student population, the semi-free University access for students, and the social prestige of university degrees have provided a continuous increase in the number of students. On the other hand, the lack of real alternatives for young people wishing to follow studies beyond the age of eighteen instead of joining the labor market, because of a limited and discredited professional training, always provided a growing influx of university students. This increase has been so strong that it obliged the regional government to create new universities so that in the last decade they have doubled. Nevertheless, the University of Seville continued practically without any competence, students only joined the new universities for reasons of geographic proximity and in fact the major effect consisted in that the distribution of universities in the area let young people without any possibility of receiving higher education for lacking the means to travel to other towns, find that they could study having a neighboring university. This way, new universities nourished chiefly on emerging university students, while old universities maintained their market, which even grew each year because of the increase of the population.

But in the last three years the situation has changed. The environment is becoming hostile in a slow but continuous process in which the appearance of new private and even public universities makes it evident in some Regions that there are competitive tensions both related to the attraction that can be exerted on a big number of students and also to the ability to make the University interesting for the students of best qualification. In seven years Spain has changed from having four private universities, belonging to the church, to having seventeen, where entrepreneurial groups have entered, to which other two projects in procedure of approval have to be added. This proliferation of higher education institutions has permitted to raise the number of students studying at private centers up to 110.000. The big boom of private universities has been outstanding in the Community of Madrid and has not reached Seville. The University of Seville does not expect university competence in the next decade even if recognizing that it will finally arrive.

Secondly, the environmental change is rapid. A dynamism that is affected by the changes in the tastes and interests of the young population,but over all by the variations having their origin in the drop of birthrate and therefore in the number of students accessing the University. In 1999 for the first time, the University of Seville has only had an increase of 3.000 students and it is foreseen that next year the growth is going to be zero. Spain has become one of the European countries of lowest birthrate and its effects were already appreciated in other universities five years ago when the number of students enrolled began to descend. The descent of birthrate that started to take place in the late seventies in Spain has already had its consequences on the University. In Spain, the number of students starting their university studies in the academic course 1996-97 has fallen for the first time since 1940. Concretely, there were 6.000 students less than in the previous course starting their studies, which contrasts with the increasing tendency during previous years (3.6%; 3.9%; 4%).

On the other hand, a greater complexity is taking place in the university environment. Students have more diversified needs which are necessary to meet. The University of Seville has augmented in the last decade the number of degrees offered in a 40%.

The growth of the number of students led to overcrowding in the classrooms, with groups that in some of the cases reached 250 students and subjects with 3.000 students enrolled. Overcrowding has brought among its negative effects the increase of the levels of failure in school, also due to the uniformity in the proceedings and the distance of lecturers regarding students. Overcrowding, originated by the impossibility of keeping a close and differentiated treatment, has been taken during quite a long time as something impossible to overcome. Of the nearly quarter-of-a-million university students who started their studies last year, only a 40% will finish their degrees within the time planned in the programs, a 32% will conclude with an average delay of 1.5 courses and a 28% will abandon their studies after wasting an average of 2.8 years at the university.

THE ALTERNATIVE BETWEEN BEING COMPETENT OR COMPETITIVE

The University of Seville has had a dominant position during centuries, which it wants to maintain despite the creation of new universities. In fact, a new public university has started to work three years ago installed six km. away from the city.

The University of Seville faces the choice of adopting strategies to better compete in the future or rather developing strategies to improve its capacities.

The lack of real competence in present moments (the new university is too small, young and away from the city center to be attractive to students) and the distance where the competence of other universities is foreseen in the future, took the University to adopting the choice of "being competent", as a base for its strategy, that is, trying to be the best in many aspects by means of the development of internal capacities.

The development of a strategy always supposes studying thoroughly the actions, programs, norms and behaviors that have to evolve. A new strategy provokes changes that are difficult to produce and assume in institutions such as the University of Seville, with a big load of structural inertia. Therefore, the new strategy required a support and an institutional impulse of great importance to manage to set in motion and to change the traditional course of the entity. In the case of the University of Seville, two types of impulses were conjugated, the external and the internal, and quality as a common message to

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which to be able to adhere all, as much the lecturers as the students, regional government and the administrative staff.

THE EXTERNAL IMPULSE

The improvement of the internal capacities was associated to quality management. The search for quality in a systematic way and the establishment of guidelines and quality plans raise largely as an answer to external actions or demands that impulse or put pressure on the institution.

In Spain this impulse connected with the social pressure manifested in students' demands of quality and modernization to receive education at the levels required by our times, sometimes without a clear focus, but with a global wish of improvement.

Moreover, the appearance of a movement at a national government and European Union level for the quality of higher education originated the introduction of institutional actions.

Article 126 of the Treaty establishing the European Community lays down, in its first paragraph, that the Community will contribute to the development of quality education by promoting cooperation between Member States, supporting and supplementing their action, while fully respecting state responsibilities, aimed at achieving the goals laid down in the Treaty.

Based on the interest shown by the Member States for a greater development of a quality higher education in their university institutions, the Council of Education, held in November 1991, proposed the development of a community action in the field of quality assessment. In 1994, the Commission and Member States each put into practice pilot projects with the aim of evaluating the quality of education and learning of some disciplines at some particular institutions [Vicerrectorado de Calidad, 1999].

Quality assessment systems at the beginning of these actions were unevenly developed in the different Member States. Therefore, a fundamental objective of the projects was to increase the awareness of higher education institutions about the need of quality assessment, in anticipation of improving the education itself that students receive. The results obtained in the pilot projects were presented at the Council of Education on May 6, 1996, in which the Commission's intention is noted down to present a Recommendation following the guidelines of this report.

In its 349th Plenary meeting, held on October 29 and 30, 1997, the Social and Economic Committee approved a Report that later became the following Council Recommendation to Member States (OJ 7. 10. 1998):

A. Support and, where necessary, establish transparent quality assurance systems with the following aims:

- to safeguard the quality of higher education within the specific economic, social and cultural context of their countries while taking due account of the European dimension and of a rapidly changing world;
- to encourage and help higher education institutions to use appropriate measures, particularly quality assurance, as a means of improving the quality of teaching and learning, and also training for research.
- to stimulate mutual exchanges of information on quality and quality assurance at Community and world level.

B. Base systems of quality assurance on the following:

- autonomy or independence.
- adaptation of quality assurance procedures and methods to the profile and aims of higher education institutions.
- targeted utilization of internal or external aspects of quality assurance.
- involvement of the different parties concerned according to the purpose of the quality assurance.
- publication of the quality assurance results in an appropriate form.

C. Call upon the competent authorities and higher education institutions to attach special importance to the exchange of experience and cooperation regarding quality assurance with other Member States.

D. Promote cooperation between the authorities responsible for quality assessment or quality assurance in higher education.

In Spain, the Council of Universities, in a Plenary session held on September 25, 1995, agreed proposing to the Government a plan of quality assurance of Spanish universities.

The Plan was founded on the procedures that the Council of Universities had developed through the "Experimental Program of Quality Assessment of the University System" (1993 - 1994) and the "European Pilot Project for the Quality Assessment of Higher Education" (1995).

The Order in council 1947/1995, dated December 1 (BOE dated December 9, 1996), by which the National Plan of Quality Assessment of the Universities is established, provides that the plan will have a length of five years, annually revisable, and it will be carried out by means of a yearly call in where both public and private Universities can participate for the accomplishment of institutional assessment projects.

THE INTERNAL IMPULSE

Coinciding with the process started in the E.U. and Spain, a change takes place in the Government of the University of Seville, a new Rector taking over the post in July 1996. Next we show the compromises and considerations expressed in his government program:

Achieving excellence forms part of the history and essence of the University, and this is made through the quality of education, research and of the different services it renders. Therefore, concern for quality in these moments must be considered as something superior than the circumstantial: it is to keep active what is essential to the University and contribute to its improvement.

How, University goals, as those of any organization, cannot be achieved alone, it is necessary to undertake positive support and encouragement actions to achieve them. In this sense, the University government must act with a global view to broaden and give power to the actions and initiatives generated at the Institutions, Departments, laboratories, services, and even to those taking place at an individual level, in order to create a framework in which all of them could acquire an appropriate transcendence being integrated in a general project.

Quality is perceived much more notoriously in the education, but this question cannot be separated from other two elements, research and services, which reinforce and condition it, in such a way that the joint consideration of the three aspects is the obligatory reference for quality improvement.

For quality assurance it is essential that governing University organs fulfill formally expressed guidelines and objectives. It is also necessary to explicitly define a quality policy and create mechanisms to translate it to the facts and make it effective. Therefore the elaboration and development of a Quality Plan is necessary for quality assurance.

The development of quality requires improving the available information, but the tendency to establish exhaustive control systems must be avoided, except those affecting very basic questions, as the effect is used to be negative over cooperation, motivation and staff compromise.

It is indispensable that the information improvement of university activities at all levels be translated in a broader diffusion and accessibility to it on the part of the University Community. Transparency and knowledge provided by having enough information are of the most efficient stimuli for improvement.

Quality improvement requires in many cases new resources and investments, but it has to be taken into account that the most important progresses in quality are achieved by the best use of the available resources, by their more rational and equitable employment. An increase of expenses for quality improvement is sometimes a necessary condition, but never enough to reach it.

The National Plan of Quality Assessment of the Universities represents an opportunity to improve quality in a period of five years. The University of Seville, already having undertaken actions in this sense, must do its best to put itself among the most active Universities in the elaboration of thematic and global projects within the formulation of the Quality Plan [Diez de Castro and Martin, 1998].

The Ministry of Education's near accomplishment of an institutional quality assurance of Spanish Universities turns the issue of quality into a greater requirement for the University, which will have to conserve and increase the prestige and history it has accumulated centuries long.

Quality can be achieved thanks to the effects of accumulated actions, individually in many cases less important, which become powerful because of their integration in a global policy and in a Plan to provide them coherence.

Nevertheless, even if quality is a long and future project, actions must be undertaken immediately, as it is difficult to keep fulfilling partial objectives and carry out in little time what was left undone in previous moments.

All this is specified by the following actions:

- Elaborating a Quality Plan in which, in addition to the University guidelines and policies in this matter, the form and way of assessing the satisfaction degree of students, lecturers and administrative and services staff is clearly laid down. This Quality Plan will be established in transparency, starting from the reception and diffusion of truthful and objective information, through a process of high participation.
- Constituting a Committee of Quality, acting as a representative organ of the Government Board with the general mission of promoting, supporting, and assessing quality progresses of the University of Seville.
- Undertake immediate actions such as:
- Establishing a direct channel to recollect, by the appropriate means, the suggestions, complaints and claims of the whole University Community, giving a fast response in all of the cases.
- Constituting organs of coordination by degrees to favor the connection and the joint vision of the programs and theoretical and practical courses imparted.
- Encouraging research on the educational practice, creating rewards referring to evaluation systems, the use of didactic means and resources and their repercussion on teaching, analysis of teaching processes, communication modes and relation with the students.
- Reducing procedure and waiting times regarding concrete services as the expedition of certificates and enrolling.
- Establishing a program of recognition of the educational and non-educational labor, as the University must publicly demonstrate the value it confers to endeavor and compromise of those who best serve for it.
- Fundament, in any case, the process of determination and establishment of immediate and also of longer-term actions on participation and collaboration, and on the agreement with the collectives that are going to be responsible and/or their beneficiary for their execution.
- Fundament the legitimization of immediate and longer-term measures and actions on their approval by the governing University organs.

DEVELOPMENT AND EXHAUSTION OF THE MODEL - NEW CHALLENGES

During the last years the University of Seville has advanced in three directions [Díez de Castro, 1999]:

a) Establishing Assessment programs of Degrees and Departments.
b) Creating organizational structures for the development of quality management.
c) Developing institutional programs for the improvement.

Assessment Programs of Degrees and Departments

The National Plan of Quality Assessment of the Universities foresees that the unit of evaluation should refer to the Institutions and degrees (a Institution can impart one or more degrees) evaluating three big questions; the teaching of each degree, research carried out in the Institution or by its own staff and the Institution's services. This evaluation is accomplished in two phases: 1) Self-assessment; 2) External Evaluation.

The Institutions voluntarily propose the degrees to evaluate each year and the University establishes the definitive program of evaluation. As a whole, in three years forty degrees have been evaluated.

Last year an evaluation program was started at the Departments, the organs responsible for education and research, having evaluated a total number of 18 departments.

Despite the system is absolutely voluntary, the number of degrees and departments requesting the evaluation is higher each year.

Creation of Organizational Structures For The Development of Quality Management

The following collective organs have been created:

Commission of Quality of the Government Board
Commissions of Quality of the Institutions
Commissions of Quality of the Departments

The Commission of Quality of the Government Board has the functions of controlling the activities that the University undertakes in the matter of quality; studying and advising in the issues affecting quality in the education, management, and research; inform the Government Board about the projects presented to the National Plan of Quality Assessment of the Universities, and about the evaluation results of the projects presented to this Plan; assessment of the quality programs, projects and actions undertaken at the University; and proposing measures to the Government Board about the execution of general guidelines proceeding from the university Senate in the matter of Quality.

Commissions of Quality of the Institutions and Departments. Commissions are constituted with the participation of all stratums, with responsibilities over the quality assessment and control of education, research and services. The Commissions take the necessary steps to guarantee the diffusion of evaluation reports, the participation of the university community in its development and results, the collaboration with the External Experts Committee, the remission to the correspondent government organs and the development and implementation of the measures and projects approved by the University Government Board.

In order to go ahead with these processes it became necessary to establish an executive unipersonal organ within the University structure. Thus the Vice-rectorate of Quality was created whose functions focus on the promotion, design, implementation and control of Quality Plans. This Vice-rectorate has a Technical Unit to support the work of the University Commissions and Committees including data recollection, elaborating reports, carrying out surveys, etc.

Development of Institutional Programs for the Improvement

According to advances in the processes, general deficiencies and needs have been detected that had to be attended by central University organs since they affected the University on the whole. Thereby new programs have been started up, adding them to the already existing ones, completing in some cases only partially attended aspects:

Unit of Complaints and Suggestions
Assessment of lecturers
Recognition of lecturers' teaching excellence
Implementation of new tutorial systems for the students of new access
Control of new study plans
Improvement of information in general
General Internet access for students
Training of new lecturers
Innovation programs in teaching
Systems of welcome to first year students

The model for the development of the competencies has been based on the progress of total quality management. A model such as the above obliges the implication of all collectives, therefore it is an adequate model for the goals pursued, as human resources, essential in any organization, become a cornerstone at the University. It has been necessary to establish motivating factors and achieve the implication of the university community, which has been carried out on the basis of: a) voluntary participation (imposition or compulsoriness are factors of refusal) and, b) the encouragement represented by the feeling of belonging to a centenary institution and with a socially essential activity for the community.

The election of this channel in order to manage to join forces and motivate the staff was practically obligated because the University of Seville is such an institution where employment stability is a basic principle, and in whose wage system retributions are only differentiated by the position one occupies in the administrative post. Lecturers and employees do not receive higher retributions nor are they in a better position to advance in their administrative career by the fact of better carrying out their job, more efficiently managing the resources, or providing creative ideas; these are the questions that are going to weigh very little or nothing being presented at the competitions to access superior levels.

So motivation has as a principal support such aspects as the wish of recognition or the awareness of being working for collective values such as the social impact of education, the reputation of the institution or the duty originated by managing a public service.

The University of Seville has made an important advance in this line, inculcating a culture of assessment as a previous step to improvement. Participation of all the stratums in the process development and volunteering created an environment free of tensions having facilitated its progress. Nevertheless, a phase has been overcome; it has not concluded yet, but its effects and developments have been exhausted.

In this moment, after having taken the earlier steps, new questions arise and also other challenges appear since the development of the system brings to light such questions and objectives, priorities and opportunities that earlier had seemed diluted but now they spring up with the strength of a need that is urgent to meet.

The whole process has been carried out till now without providing any additional financing nor reallocating resources. Funds are still allocated with the same criteria and each budget is a reflection of the previous one with small adaptations that nearly always consist in adding more funds to the previous items.

It is evident that the progress in the evaluation must take directly to the budgeting differentiation, which supposes new resource allocation criteria in the light of its results. Differentiation breaks the idea of equality for everyone, no matter what they do, and it becomes an approach by which those having more ability to develop ideas, the most active in self-criticism and in management are the ones that enjoy a major dynamism, and will finally be those to get a major share of the scarce resources available. This is undoubtedly a revolutionary change in an institution as the University of Seville, a change that will have to be approved by the collective government organs and which will certainly provoke a strong refusal in big sectors, unless it is carried out step by step and very prudently.

In order to progress in the development of the University capacities, what has to be done seems fairly clear but the way of doing it is essential. Any error, even a small error could paralyze the whole process.

The University of Seville is appreciating two approaches to advance in the next biennium: the contract-program and quality accreditation.

The contract-program is an agreement established between the University and the assessed Institutions or Departments, by which the University commits itself to provide an agreed amount of resources, if in their turn the Institution or Department is ready to fulfill certain goals agreed upon by the University with the Institution taking into account its initial situation.

Quality accreditation consists in the recognition by an official agency, in this case the Andalusian agency U.C.U.A., of the quality level of the Institutions and its Degrees. This recognition should follow the European Union guidance as regards the definition and orientation that Quality Assurance must be given at the Universities.

There is no doubt that these actions and any other one oriented in the same sense will strongly face the two great weaknesses of the university system: the lack of external stimuli and the financing system.

The first and maybe the greatest weakness of the University of Seville is the lack of clear threats, which are not predictable to arise during the next decade, and the only factors of concern regarding competence are diffuse or merely speculative. For many organizations the lack of competence would be one of their strengths, but in our case it eliminates a vital external stimulus for the change and the improvement. At the external impulse level we still have, as a unique factor, the light pressure exerted by European, national and local institutions.

The second great weakness can be found in financing. The improvement and quality approach becomes very difficult to implement when the resources available are very limited, tied, poor or insufficient to maintain the present situation. Resource reallocation turns out to be nearly impossible when the starting point consists in having at one's disposal just enough to survive. In these circumstances, any resource reallocation the University could internally do would suppose leaving part of the Institutions without the minimum resources to maintain the activities, this would originate a quality deterioration in these institutions, whose intensity would be more than proportional to the reduction of resources. It is therefore indispensable in order to affirm the process, to obtain additional resources, complementary of the present budget and separated from it, exclusively allocated to the support of the programs of quality improvement and the improvement of the institution competencies. These resources can only proceed from a future agreement with the Andalusian regional government, which is the one to decide on the University budget, to determine the subvention and to agree upon the sum of academic fees.

STRATEGY IN THREE DIMENSIONS

Quality requires money, time and understanding [Freed and Klugman, 1997]. Three scarce factors that act in different ways and have different effect being in addition permanent elements of external criticism to the development of a quality system. One of the first questions of the persons in charge at institutions or departments is "how much money do you have for quality" and, according to the available budget, so they judge the real interest of the highest academic authorities. Time is the second barrier, "these processes are very slow and people, even if they are interested at the beginning, little by little they stop paying attention", another frequent and well-based criticism, but little can be done to reduce assessment and implementation times. No doubt that the biggest one of the barriers is the lack of understanding of such expressions as culture of quality, motivation, good management, applied to themselves and not to others. This reality has taken to very measured actions in the policy of the University of Seville. Volunteering, conviction and participation have been basic elements to limit the negative effect of the barriers and to turn into acceptable and even attractive an issue that in the beginning could suffer a refusal, provoking irreparable effects.

After a few years, having developed a university policy directed towards adapting the University to the requirements and needs of the environment, and provoking at the same time actions tending to force a cultural change in the organization, we can state that the results have been important in three great issues: the assessment culture has advanced decidedly; the initial refusal to change has notably mitigated until nearly disappearing; an organizational structure able to promoting change has been created. This is therefore the moment to jump forward, leaning on the earlier actions but generating changes that manage to penetrate deeply at all the organizational levels.

The strategy designed lies in three dimensions:

1. Assessment at all organizational levels.
2. Integration in quality assurance networks and their promotion and support in Latin-America.
3. Development of institutional actions for the generation of strengths at the University.

ASSESSMENT AT ALL ORGANIZATION LEVELS

Assessment is vital to achieve that the assessed units become aware of their strengths and weaknesses and the governing organs can define in a founded and consistent way the improvement projects in order to correct defects and deficiencies. Moreover, thanks to the assessment, following a common model, it is possible to establish comparisons with other universities and to have a reference that allows a clear definition of the actual situation.

The assessment process at the University of Seville has been important as regarding the degrees, but very limited in other aspects. This is why we think it is necessary to continue insisting in the assessment but extending it to all university fields. More specifically, we are in favor of an Assessment Plan divided in the following partial plans:

Assessment plan of degrees. Establishing revision and control systems of the degrees already evaluated and completing those that are waiting for being accomplished.

Assessment plan of Departments. Recently started in 1999, it has only been developed at an experimental level. The importance of the departments as responsible for education and research makes it advisable to carry out more decided actions in this respect.

Assessment plan of the management and administration. Despite the hundreds of employees ascribed and the slowness of its working, the University of Seville has not undertaken evaluation actions in this field, limiting itself to imparting some courses on quality to managers.

Assessment plan of the services. These are activities the university carries out for both its internal consumption and the exterior. They focus on services of laboratories, research Institutes, University sports services, etc. These services maintain certain economic and management independence, even if in many cases they have high budget. Until now no evaluation action of these services has been undertaken, which finally contributes to the fact that they focus their attention on carrying out their functions rather than on searching for objectives, which they lack.

EURO-AMERICAN QUALITY ASSURANCE NETWORKS

We are witnessing orientations to future in different geographical areas, the European Union and Latin-America, which become specific in the need of cooperation and establishment of alliances between and among Universities. The European Community has been promoting cooperation and exchange programs for quite a few years under the names Erasmus, Tempus, Socrates, and Leonardo da Vinci. The Spanish government develops a program with Latin-America called Intercampus that has originated a strong interchange of professors and students. In these programs the University of Seville has participated very actively and on this basis it seeks to develop a future strategy of penetration.

According to the Report and the Recommendations of the European Union in matters of higher education, the way of cooperation on a transnational basis will be translated into the creation of Quality Assurance Networks. Even if this aspect is not yet developed, governments and universities are already working in this direction.

In this line, the University of Seville is making a huge endeavor in internally potentiating and developing the quality systems following the European Model validated by the Spanish Council of Universities, at the same time as it has become integrated in the principal Spanish organizations of quality management.

This way, the situation is adequate for promoting the creation of Quality Assurance Networks paying special attention to Latin-America, making the most of the numerous covenants established with Latin-American universities, answering a vital need, the certification of quality levels, in which the numerous private universities participate especially. This is how fostering the creation of an accreditation agency with the participation of European and American universities is a question that will place the University of Seville in a relevant position.

INSTITUTIONAL ACTIONS

These actions arise in order to generating the strengths necessary to actively support the University strategy. More specifically, we define four large actions:

1. Improvement of the infrastructures.
2. Reduction of school failure.
3. Promoting new technologies.
4. Labor insertion of students.

Improvement of the infrastructures

After 25 years of overcrowding and a constantly growing number of students, time has come for stabilization and even for establishing policies in order to produce soft reductions in the following years. Nevertheless, infrastructures are insufficient and overflowed, such as classrooms, libraries, study rooms, and space in general. Buildings conceived for 3000 students are occupied by six thousand, after suffering continuous reforms. It is evident that quality education requires increased university spaces, at least in a 50%. The infrastructure plan of the University already counts on the assignment of important areas of urban land and buildings from the Town Council.

Reduction of School Failure

The high rates of school failure already mentioned can be labeled as the greatest waste of resources produced at public universities. It has different causes and some of them are far from the possibilities of University actions. Nevertheless, there is a field where, by changing and improving the systems of learning, the University can achieve a reduction. In order to thoroughly studying the issue and generating a packet of positive measures, a study was carried out with the participation of an important number of lecturers having a high level of teaching evaluation [Álvarez, 2000].

As a consequence of the study, a coherent set of proposals has arisen from the well-evaluated lecturers to increase the possibilities of students' learning, giving an indispensable orientation for the design of a packet of measures in this respect.

Promoting New Technologies

The impact of new technologies in their application to university education is being put off. There are interesting experiences but they remain limited to specific courses or professors that have special interest. The University must fix double objectives in this field, on the one hand increase the support to students to generate facilities in the use of computer resources and networks, and on the other, increasing the possibilities of their employment by lecturers in designing their courses and the imparting education. Objectives will focus on the development of courses by internet, with partial attendance, on non-central subjects in the degrees. These courses will serve to expand the offer of curricular subjects to all campus students. On the other hand, by means of offering university extension courses of partial attendance to the whole of society, the enlargement of experience will manage to reach a student community that until now has been very limited and who look for training complements outside the universities.

Labor Insertion of Students

Spanish universities in general have not considered until now that bringing students nearer to the labor market is among their functions. This situation derives from an era when all university graduates could find jobs without any difficulty. The situation has changed in the society, and therefore, the University of Seville must evolve as regards its compromise with students. Today, in addition to providing good training, also the needs of those final clients must be met who are on the following step of the value chain. We refer to the organizations that request or contract the services of university graduates. The design of a packet of actions in this respect must go beyond practice programs at enterprises that students carry out while coursing their studies, having to include training and support for their integration in the labor market. This action requires a new channel for being set forward that must become specific, we think, in the creation of a University-Enterprises Foundation.

It is evident that a proposal has been made linking the present situation to the future on the basis of evolution and not on rupture. We consider that the above reflections form a strategy of change that lacks spectacular aspects. This proposal is the adoption of a position that is not uniquely originated by experience in university management; it also rests on research results about organizational ecology.

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ANNEX 1

University Organs carrying out research:

1) University Departments: 110
2) University Institutes: 4
3) Inter-university Institutes: 1
4) Mixed Institutes CSIC: 3
    * Sciences of the Materials
    * Institute of Vegetal Biochemistry and Photosynthesis.
    * Institute of Chemical Research.
5) National and Autonomic Institutions: 3
    National Institute of Accelerators.
    National Institute of Microelectronics.
    Andalusian Institute of Metrology.
6) General Research Services: 10
7) Research Groups (financed): 327
    * Sciences of Life: 38
    * Natural Resources and Environment: 17
    * Health Science and Technology: 38
    * Physic, Chemistry and Mathematics: 42
    * Information and Communication Technologies: 7
    * Production Technologies: 30
    * Food and Agriculture: 5
    * Humanities: 117
    * Social, Economic Sciences and Law: 33
8) Research Projects: 239
9) Research Grants:
    L.R.U. Projects, Groups and Contracts: 84.
    In Firms: 21
    Cámara Foundation: 8
10) Post-doctorate Contracts: 30
    * Contracts with the E.U.: 6
    * Incorporation Contracts of Doctors, MEC: 24
11) Labor Contracts charged tc L.R.U. Projects, Groups and contracts: 68
12) Technical Contracts in Practices, MEC: 7

ANNEX 2

GOVERNING ORGANS OF THE UNIVERSITY OF SEVILLE

COLLECTIVE ORGAN	ESSENTIAL FUNCTION	UNIPERSONAL ORGAN
Social Council	Control that University decisions do not engage more resources than what the government is ready to provide. Approves the annual budget Approves new degrees	President (appointed by the regional government)
Senate	Elects the Rector. Approve important decisions of the Government Board	President (The post is occupied by the Rector)
Government Board	Management of the University	President (The post is occupied by the Rector)
Boards of Institute (Faculty or College)	Study Plans Coordination y services for the development of teaching. Election of Dean or Director	Dean or Director
Council of Department	Education and research Teaching staff (contracting, control) Election of Head	Head

ANNEX 3

BUDGET OF THE UNIVERSITY OF SEVILLE (10^6)

INCOMES

FEES AND OTHER INCOMES	**7.843**
Public Prices for official education	6.888
Other Public Prices restauración	429
Lodging, Dining hall and Residence Fees	100
Other Services	356
Sales of own Publications	53
Year-end Refunds	11
Other Incomes	3
CURRENT TRANSFERS	**21.730**
From the Ministry of Education and Culture	83
From other Ministerial Departments	11
From Autonomous Administrative Bodies	14
From the Autonomous Community. Nominative	20.975
For the Social Council	15
From the Autonomous Community. Other Transference.	548
From Local Corporations. City Councils	2
From Private Enterprises	20
From Families and non profit Institutions	38
From outside	22
PATRIMONIAL INCOMES	**71**
Interests of bank accounts	45
Administrative Concessions	25

CAPITAL TRANSFERS	1.882
From the Ministry of Education and Culture	592
From the Autonomous Community for Research.	69
From the Autonomous Community for Investments.	1.210
From private enterprises	10
FINANCIAL ASSETS	2.737
Treasury Residues	2.737
TOTAL INCOMES	34.265

EXPENDITURES

PERSONNEL EXPENDITURES	23.711
Teaching public officers	11.649
PAS Public officers	2.683
Labor contracts	3.145
Contracts by Administrative Law System	3.109
Productivity and Staff bonuses	93
Social Contribution	2.733
Social Personnel Expenditures	295
CURRENT EXPENDITURES ON GOODS AND SERVICES	4.131
FINANCIAL EXPENDITURES	67
Interests	18
Surcharges for Enforced collection	49
CURRENT TRANSFERS	451
Erasmus-Socrates Grants	136
Sports Grants	33
Vice-rectorate of Students Grants	49
SACU Grants	2
Library personnel Training Grants	31
C.D.E. Grants	1
Enterprises Practice Grants	64
University Extension Aids	36
Culture Halls	10
Aids to Third cycle Students	6
Sports Activity Awards	1
Subsidies to Residence Halls	6
Subsidies to Families and Institutions	5
Subsidies to Public Enterprises and others	35
Autonomous Communities Current Transfers	30
REAL INVESTMENTS	5.887
Construction and equipment of University Institutes	3.622
University Research	2.164
Pedagogical Renovation	100
EXPENDITURES OF THE SOCIAL COUNCIL	15
TOTAL EXPENDITURES	34.265

AN APPROXIMATION TO THE MANAGEMENT OF INTELLECTUAL ASSETS IN SPAIN

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Abstract

The measurement techniques in order to get an accurate vision of the company assets has been recently arrived in the Spanish companies. The strict rules given by Spanish Accounting Legislation do not let measure appropriately the patrimony, neither all posibilities of growing and changing.

KEYWORDS: Assets, Knowdledge, Account measurement, Intellectual Capital

INTRODUCTION

The company is in a continuous change. This change also affects to the terms that are used. In the company of the XXI century it will be spoken more of intellectual assets and emotional intelligence (IE) than of paying-offs or equipment. So, we need new technologies and computing implements leading to negotiate the knowledge of the organizations efficiently.

The capital of a company is not measured alone for the sum of its goods registered in the inventory, its financial assets, its stocks of products and merchandises, but that each day is valued more the intellectual capital of a company worried to create in the current Society of the Information Knowledge[Rivero, 1999].

Nobody will have guaranteed their work position in any place, even though the company prospers for the one that works, nobody will have a labor safe-conduct in its coefficient of Intelligence. But in this way the quotient of Intelligence is a genetic gift, the Emotional Intelligence can and it should be developed with the years, the maturity is the word with, traditionally, we have referred to the development of the Emotional Intelligence [Goleman, 1998].

It is not enough with which we have clear the ideas about tendencies and productive strategies. The question is: How to manage the knowledge of our company?, how to speed up the processes of TQM? The thousands of data stored in our companies hide a strategic hidden value of which we are not able to neither we should to do without.

THE CONCEPT OF INTELLECTUAL ASSETS

The traditional pattern of accounting that so well described the operations of the companies during half millennium, it cannot follow the rhythm of the revolution that is operating in the business. The General Plan of Accounting (GPA) in Spain (considering changes after joining the European Union in 1986), and the well-known accountant of the "faithful image" just reflects a part, a portion of the complex reality of the company.

Some authors suggest that in the intellectual capital it is understood what we generally denominate fixed assets [Davenport, 1998].

In 1991 the American Institute of Certified Public Accounting (AICPA) organized a special commission of financial reports to study the growing concern for the fact that the traditional countable systems are no pertinent for the economy, already. The commission found many important areas that deserve to improve; improvements that could be carried out:

a) With the supply of information relative to corporate plans, opportunities, risks and uncertainties.
b) Contributing a better adjustment of the external mechanisms of information with the internal systems of administrative control and information.
c) By means of the new discussion of the factors of not financial yield that create value to longer-term.

These recommendations rest in the supposition that yield non financiers data are of pertinent value and they can be used efficiently by the investors like main indicators of future financial yield.

FACTORS THAT AUDIT IN THE INTELLECTUAL ASSETS

The Intellectual 'Capital' is centered in the study of the roots of the value of a company, the measure of the hidden dynamic factors under the buildings and visible products of that.

Which are those factors? According to investigations carried out by the Swedish company Skandia, dedicated to the sector of insurance and services financial, and considered pioneer in the analysis of the Intellectual Capital, those factors are basically of two classes:

1. The human resources. Combination of knowledge, abilities, inventive and the individual employees' of the company capacity to carry out the task that they have among hands. It includes the values of the company, its culture and its philosophy equally. The company cannot be landlady of the human capital.
2. The structural capital. The equipments, programs, databases, its organizational structures, patent, factory marks and all that is part of the organizational capacity that sustains the productivity of their employees. The structural capital includes the capital clientele equally, the relationships developed with the clients key. Contrary to the human capital, the structural capital can be property of the company and therefore you can negotiate.

HUMAN CAPITAL
+
STRUCTURAL CAPITAL
____
= INTELLECTUAL CAPITAL

In particular, the intellectual capital values such activities as the client's loyalty or the employee's aptitude, that perhaps don't affect to the results of a company during years. And it doesn't grant value to short-term success, that doesn't position the company for the future.

THEORY ON INTELLECTUAL CAPITAL

The intellectual capital can be a new theory but in the practice it has existed for years like question of common sense. It has been hidden between the value of market of a company and their value in books.

$$IC = MV - VB$$

IC: intellectual capital
MV: market value
VB: countable value in books

The essence of the *economy of the knowledge* are enormous investment flows for human capital as much as for computer technology. The recognition of this new reality forces to prepare a new balance in which the past is balanced by the future and the financial thing by the financial thing: the Intellectual Capital (IC).

Given the frantic rhythm of the technological change and the almost instantaneous speed of the modern telecommunications, we are flying blindly in the middle of a hurricane, and for instruments that measure what they should not measure. It becomes difficult, then, to establish measure approaches that diseccionen all the components of the real value of the organization.

But, mainly, the intellectual capital is unavoidable because it is the only one, among the models of measure of yield of the organization that goes beyond the surface and discovers the true value. When making this way it, it returns the common sense and the equity to the economy.

THE CAPACITIES OF THE ORGANIZATION

THE CONCEPT OF VALUE

For the Dictionary, value is a "quality of the things, by virtue of which one gives to possess them certain sum of money or equivalent". The value, for the organization, is in the ***assets***. The assets are everything that owns a company and that has a price in terms of money.

The asset constitutes the materialization of the sources of own and other people's financing, that is to say: in what elements we have invested the funds.

To *INVEST* is to acquire a very concrete goods, to pay a current cost with the hope of obtaining a benefit in the future. It is to substitute an uncertainty for a group of expectations.

Investment in two senses:

- To the one effect in equipments? goods (several years in their breast)
- Purchase of any goods to the margin of the time that going to be in the company.

There is a value that we could denominate *added*: It could be the loyalty of the clients, or the recognition of a social reason that has already decades of existence, or the location of the store, even the character of the employees. Any that were these factors, grouped under the title of *goodwill,* with own bill in the General Plan of Accounting, the same thing that before was made with the services.

THE MEASURE OF THE INTELLECTUAL CAPITAL

The work began at the end of 1994 and in May it was published and it was distributed to the shareholders in the annual assembly. His title was *Visualization of the intellectual capital* and it was presented as supplement to the Annual Report of Skandia for 1994. It was different from as much as had seen until then the world of the business.

To measure intangible assets and to publish reports was not the only activities of the department of intellectual capital during this period. Another activity consisted on to look behind and to determine accurately how they had arrived until this point and what lessons they had learned in that process.

The result was an itinerary of six steps in the creation of intellectual capital:

PHASES OF INTELLECTUAL CAPITAL

- Missionary
- Mensuration
- Management
- Informatics
- Capitalization
- Futurization

1. Missionary phase. This first phase includes the first perceptions that the organization has when it recognizes the necessity to take out to the surface its intellectual capital.
2. Phase of Mensuration. The second phase assists to the development of balance indicators. It is also included the function of *controller* of intellectual capital and the initial work of concerting the measure of this capital with the ordinary countable system of the company.
3. Phase of Management. It comes the decision soon at several levels of the firm, of acting on the new concepts that it comes from the perspective of the balanced report.
4. Informatics phase. This phase emphasizes the development of the technology to increase the "transparency" and the packing of the knowledge, as well as the necessary communication systems to share that knowledge.
5. Phase of Capitalization. It captures the use of contained organizational technology, as well as intellectual property for the creation of intellectual capital. The capitalization is basic for the recycling of the fundamental knowledge and investment of structural capital of the company.
6. Phase of Futurization. This last step is the systematic cultivation of the innovation like central competence of the organization, to maintain a continuous renovation and development.

The team of intellectual capital, with approval of the management of Skandia, intended to create a model that assisted as much to valuation as to navegation. First, valuation. This required an scheme that distinguished the diverse components of the intellectual capital [Edvinson, 1999].

An objective of the process of valuation is to highlight unusual combinations of relationships and then to put them on approval to see if they give a new unexpected and useful perspective a about the organization. The navigation is a very different thing. It can be defined as the search of another language of dynamic reports beyond the administration. In particular, it heads to highlight the continuous process of strengthen the remains of the long-term organization and to foment their roots for the sustained generation of flow of funds.

This way, the renovation focus and development is related to the future of the organization, the structural focus with the present and the financial focus with the immediate past.

THE FUNDAMENTAL EQUATION OF THE INTELLECTUAL CAPITAL

NECESSITY

The mensuration of the intellectual capital won't be restricted by any precedent and it will create new and higher levels of connections and synthesis of that before was possible.

In particular, concentrating more in events than in financial results, that mensuration saves the traditional abyss that there are between the commercial companies and the institutions without spirit of lucre. This is a surprising change whose consequences are made so much bigger at least we meditate on them, because it means that for the first time in the history we will be able to compare the value of all the institutions of the society.

Something that is very surprising it is the possibility to find an universal measure to compare the creation of value in all these different entities.

First has to take into account that we already have a way to compare the financial results of two commercial companies: they are the yields, benefits for action.

Second, we also know that, since we are working with the present and the future, not with the past, it can to come into play internal and external factors that affect any computation of value that we make

Third (and this can be the most important thing), intuitively we feel that to try with the behaviour, talents, organization and property that it produces value, our measure of intellectual capital can be applied in some form to any entity.

These three principles suggest that we can find our universal comparison if:

1. We find basic index for our model of intellectual capital that we can apply in the whole society with a minimum of translation;
2. We can ratify that central group, recognizing at the same time that each organization can have an additional intellectual capital that should be measured with other indicators, and

3. We can establish some variable that captures the predictability less than perfect of the future the same thing that the behavior less than perfect of the team, the organization and the personnel.

What we are looking for is, because, something eats this:

Organizational Intellectual Capital = I C

Where C is the value of the intellectual capital in monetary units while i is the coefficient of efficiency with which the organization is using that capital.

STANDARD MENSURATION OF THE INTELLECTUAL CAPITAL

C, the value of the intellectual capital of an organization, let us say that it is the absolute measure, because it is the central value of which we leave in our work. What indicative we added to arrive to a comparable figure that is realistic.

The Navigator, which suggests that, any that are the indicators that we choose has to be representative of the five focuses. If we make this, intertweaving reference of each focus with the monetary measure that contains; will have 36 indicators.

Uninterruptedly we eliminate any redundancy, as well as any item (as total of assets") that it really belongs to the situation balance, and we finish with 21 indexes, number that approaches to the 20 indexes that Skandia found governable to realize measures and computations easily. The list is the following one:

1. Resulting revenues of operation of new business.
2. Investment in development of new markets.
3. Investment in development of the sector.
4. Investment in development of new channels.
5. Investment in TI for sales, service and support.
6. Investment in TI for administration.
7. Variation in the investment of TI.
8. Investment in clients' support.
9. Investment in service to clients.
10. Investment in clients' formation.
11. Expenses in clients not related with products.
12. Investment in development of the employees' aptitud.
13. Investment in support and employees' formation for new products.
14. Special formation for employees without base in the company.
15. Special investment in formation, communication and support for employees with indefinite contract of complete time.
16. Special programs of formation and support for temporary employees of complete time.
17. Special programs of formation and support for temporary employees of half time.
18. Investment in development of societies and combined operations.
19. Bringing up to date of systems of electronic exchange of data.
20. Investment in identification of mark (logo / it names)
21. Investment in new patents, copyright.

SOME MODELS OF MENSURATION OF INTELLECTUAL CAPITAL

There are some models to measure Intellectual capital in Spain, which are been developed by still a few companies.

Sveiby, 1997

Sveiby has studied from 1980 the administration of the intense organizations in knowledge. It bases their argument about the importance of the intangible assets on the considerable difference of the value of the actions in the market in comparison with their value in books. According to Sveiby this difference is believed because the investors develop their own expectations in the generation of future box flows due to the existence of the intangible assets [Edvinson, 1999].

- Sveiby presents a double orientation in the mensuration of the intangible assets:
  - Toward the exterior, to inform clients, shareholders and suppliers.
  - Toward the interior, directed to the directive team to know the march of the company.
- Inside the intangible assets, it identifies three categories:
  - The employees' responsibles.
  - Internal structures. The structured knowledge of the organization including patents, processes, models, systems of information, the organizational culture...
  - External structures. Relate with clients and suppliers, commercial marks and image of the company.
- Sveiby believes that they are really people the true agent of an organization, when people guide its activity toward the interior they develop the internal structure and when they guide its activity toward the exterior they develop the external structure.
- Sveiby proposes the use of three types of indicators:
  1. Indicators of growth and innovation.
  2. Indicators of efficiency.
  3. Indicators of stability.

Skandia, 1992-96

Skandia is perhaps the most known pioneer of Intellectual Capital. The coefficient of efficiency of the intellectual capital (i) it is the authentic detector of our equation. As well as the absolute variables (C) emphasizes the commitment of the organization with the future, the variable of efficiency (i) it relates these statements in the current behavior.

We return to the general report and this time, we only take the percentages and proportions, the indexes.

1. Market share (%)
2. Index of clients' satisfaction (%)
3. Index of leadership (%)
4. Motivation index (%)
5. Index of resources of I+D / total resources (%)
6. Index of hours of formation (%)
7. Yield / goal of quality (%)
8. Employees' retention (%)
9. Administrative efficiency / revenues (reciprocal of administrative errors / revenues) (%)

We should observe that, contrary to Skandia of the indexes of leadership and motivation computed by Skandia, for our objectives the indexes have to become percentages, so that the nine indexes have the same form.

This group of nine indexes should be susceptible of combining in a single percentage that reflects with accuracy the degree of efficiency with which the company is taking advantage of its intellectual capital at the moment.

This is, because, the equation final proposal:

$$i = (n / x)$$

where ***n*** it is the sum of the decimal values of the nine indexes of efficiency, and **x** it is the number of those indexes. In other words, it is to determine the average of the indexes.

The "Intangible Capital" (Bueno, 1998)

Eduardo Bueno, Spanish Management professor in the Autonomous University of Madrid, exposes a model that analyzes the Intellectual Capital from a vision different to those that we have observed in the other models. Bueno is interested in proposing an analysis methodology that allows to know the process of transformation of the company better, conceiving this as a group of assets intangible generators of a Intellectual Capital.

According to the author, the Intangible Capital is "the group of distinctive basic competitions of intangible character that allow to create and to sustain the competitive advantage." The "essential competition" of the company is composed by three elements: some of technological origin, others of organizational origin and others of personal character.

The essential competition of the company is the result that it is achieved of the valuation of the process that combines the distinctive basic competitions. This question is the object of the Management for Competitions, in charge of analyzing the creation and maintenance of competitive advantage.

Summarizing, the intellectual capital and their corresponding basic competitions can be represented with the following equation:

$$IC = HC + OC + TC + CR$$

where:
CI = intellectual capital
CH = human capital
CO = organizational capital
CT = technological capital
CR = capital relacional

As conclusion, the pattern of Bueno offers a new vision of analysis of the Administration of the Knowledge, since examines the IC like a group of distinctive basic competitions that allow to create and to sustain the competitive advantage of the company.

Technology Broker (Annie Brooking, 1996)

Their vision and model leaves of the same base that the pattern of Skandia: the value of market of the companies is the addition of active tangible and the Intellectual Capital. Their model is based on the revision of a listing of qualitative questions.

The author classifies the intangible assets in four categories and represents them as four blocks that compose the Intellectual Capital:

Assets of Market.

They are those that are kept in mind when the companies are valued for the acquisitions or coalitions. Indicators as: Mark, Clients, Image of the company, order wallet, distribution, capacity of collaboration.

The Intellectual Property

It is refers to the additional value that is supposed to the company the exclusivity of the exploitation of an intangible asset. They are considered the following elements: patent, copyrights, design rights, commercial secrets.

People Of The Organization

The author highlights the importance that has people inside a company.

They are considered the following elements: Generic aspects, education, professional formation, specific knowledge of the work, abilities (leadership, work in team, resolution of problems, negotiation...)

The Infrastructures

It is the technologies, methods and processes that make possible that the organization works. In other models it is assimilated to the Structural Capital. Inside this block we differ: philosophy of the business, the culture of the organization that can be an asset or a passive one, the systems of information and the existent databases in the company according to Brooking.

PROSPECTIVE

A new measure of value always establishes a market system to negotiate that value. In the half age it was negotiated making exchanges or with money. Some centuries later, the process of change had already been refined, this is, by means of the widespread use of money.

With the step of another century the process of the stock market specialized. With the industrial revolution the process still passed at another level and at the end of century the XIX in the entire world bag corridors, but especially in Wall Street in New York.

At the beginning of the century twenty the essential nature of the capital markets had already settled down and of futures.

In the last 25 years we have also seen the creation in a new way, if non type, of stock exchange, the NASDAQ that specializes in volatile actions of new companies of high technology.

In Spain, during the last five years there are new companies who are going to measure their assets not only for their financial ratios, even their intellectual assets. The good rithm for Spanish economy is going to let Companies to put their energies on new methods to give value to the organization (Figures 1 and 2).

Now we have a new measure of value, the intellectual capital, as well as that a metric system to evaluate it and two simple variables to compare it. Also, this new measure has a wider application field that all the previous ones, since it embraces not only lucrative companies but also governments and institutions without spirit of lucre. It seems unavoidable that some new stock exchange system that uses the new measure with speculative ends appears.

We already have some interesting instruments with which to work. First, we have an equation in two variables, by virtue of which an organization announces its potential value and its probabilities of reaching it. We also have a group of measures about the company, some of which are incorporated in this equation but many other they are not.

This suggests a new type of market of futures for capital actions, using the measures of intellectual capital to evaluate the changing market value and to underline the bidding of contracts. This would agree with our concept of intellectual capital: as well as the report of this doesn't replace the financial accounting, but rather it is a prelude to her dedicated to capture and to control some of its more subjective and more dynamic components, likewise the bag of intellectual capital would not replace the current stock exchanges but rather it would serve as its advanced component, to manage its more volatile and more unjust elements (for the investor) restoring them certain order measure and equality.

The existence of this new system of measure of value, the same as the measure common of the intellectual capital, opens the possibility of a speculation market about intellectual capital and create this way an entirely new system of remunerations. The instrument of this market could be the contracts of futures about capital actions, or, according to the last innovation, the new options on actions of intellectual capital.

For the time being the mensuration of the intellectual capital puts of agreement the accounting and the investment with the radical changes that are verifying in the company again. And in their amplitude it captures the disappearance of the differences equally among companies and other institutions that it is taking place everywhere in our society.

Instead of replacing the current system of financial indicators that is product of many generations, the mensuration of the intellectual capital it supplements it and it increases it.

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FIGURE 1 - LIMITED COMPANIES REGISTERED IN SPAIN

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Number											
Created societies											
TOTAL	37.660	39.854	70.164	76.703	56.542	69.117	70.446	83.077	101.421	106.657	93.811
Collective Regulars	57	33	51	49	50	38	43	69	47	35	20
Silent Partnership	1	3	7	3	17		28	36	0	0	0
Limited Responsibility	9.148	11.241	24.328	34.116	45.413	62.027	65.808	79.053	97.365	102.967	90.434
Limited Company	28.454	28.397	45.778	42.535	11.162	7.025	4.567	3.919	4.009	3.655	3.357
Societies that increases their capital											
TOTAL	4.356	5.756	15.744	18.803	22.820	23.802	50.627	42.186	25.055	23.574	23.704
Collective Regulars	7	7	13	18	14	30	19	28	36	39	31
Silent Partnership	2	1	1	0	7	10	16	19	0	0	0
Limited Responsibility	531	602	1.265	1.713	3.251	5.886	15.545	16.839	13.604	14.368	15.333
Limited Company	3.816	5.146	14.465	17.072	19.548	17.876	35.047	25.300	11.415	9.167	8.340
Societies that issue bond											
TOTAL	42	8	2	3	54	56	42	38	59	23	19
Limited Responsibility	0	0	0	0	4	5	4	1	0	0	0
Limited Company	42	8	2	3	50	51	38	37	59	23	19
Societies that decrease their capital											
TOTAL	137	162	554	626	669	1.065	1.460	2.181	2.844	3.263	3.666
Collective Regulars	3	0	2	3	1	4	4	3	13	14	10
Silent Partnership	1	0	0	0	0	0	1	0	0	0	0
Limited Responsibility	12	29	32	43	60	125	164	391	535	837	1.083
Limited Company	121	133	520	580	608	936	1.291	1.787	2.996	2.412	2.573
	1986	**1978**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Dissolved Societies											
TOTAL	986	906	1.993	2.092	1.815	3.163	7.311	7.758	4.636	4.340	18.086
Collective Regulars	18	22	30	13	19	20	22	17	15	17	16
Silent Partnership	0	1	1	1	3	9	8	4	0	0	0
Limited Responsibility	334	289	461	498	427	717	1.499	2.065	1.960	2.241	3.181
Limited Company	634	594	1.501	1.580	1.366	2.417	5.782	5.672	2.661	2.082	14.889
Capital in millions of pesetas											
Created societies, cost of the suscribed capital											
TOTAL	173.464	185.062	539.282	625.706	481.691	554.124	1.174.787	602.599	554.489	572.468	613.160
Collective Regulars	115	31	137	140	138	154	173	250	945	64	285
Silent Partnership	1	1	8	4	72	897	439	623	0	0	0
Limited Responsibility	18.340	22.062	48.137	73.810	142.358	272.239	251.008	314.526	315.018	358.852	347.137
Limited Company	155.008	162.968	491.000	551.752	339.122	280.834	923.167	287.200	238.526	213.552	265.737

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Societies that increases their capital, cost of this increase											
TOTAL	250.572	282.533	1.117.878	1.266.080	1.483.835	2.186.436	2.655.894	2.749.787	2.788.329	2.461.731	2.414.870
Collective Regulars	121	781	90	63	59	149	189	606	676	551	12.811
Silent Partnership	370	53	1	0	3.643	275	243	469	0	0	0
Limited Responsibility	4.783	3.734	8.447	11.070	34.234	103.503	156.361	330.373	389.008	337.424	714.419
Limited Company	245.298	277.965	1.109.340	1.254.947	1.445.900	2.082.510	2.499.101	2.418.339	2.398.645	2.123.756	1.687.640
Societies that issue bond, cost of this											
TOTAL	186.990	41.250	47.000	2.300	315.352	287.238	250.586	246.466	782.983	182.935	91.121
Limited Responsibility	0	0	0	0	184	330	3.200	20	0	0	
	1986	**1978**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Societies that issue bond, cost of this											
TOTAL	186.990	41.250	47.000	2.300	315.352	287.238	250.586	246.466	782.983	182.935	91.121
Limited Responsibility	0	0	0	0	184	330	3.200	20	0	0	0
Limited Company	186.990	41.250	47.000	2.300	315.168	286.908	247.387	246.446	782.983	182.935	91.121
Societies that decrease their capital, cost of the decreased capital											
TOTAL	13.532	12.787	86.166	68.976	135.597	215.096	333.534	794.122	1.125.910	1.076.574	1.062.691
Collective Regulars	33	0	3	1	4	50	2	2	60	76	63
Silent Partnership	201	0	0	0	0	0	465	0	0	0	0
Limited Responsibility	64	276	310	349	4.382	3.509	4.052	20.195	30.475	34.574	41.723
Limited Company	13.234	12.511	85.853	68.626	131.210	211.538	329.017	773.925	1.195.374	1.041.924	1.020.905

Source: Anuario Estadistico de España 1998.
Instituto Nacional de Estadistica (Spain).

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FIGURE 2 - CAPITALS OF THE MERCANTILE SOCIETIES CREATED ACCORDING TO THEIR ECONOMIC ACTIVITY

	1993	1994	1995	1996
TOTAL	602.601	554.489	572.469	613.160
A: Agriculture, hunts and forestry	16.229	15.331	25.671	21.580
B: Fishing	560	1.791	1.702	848
C: Extractive industries	1.408	2.066	1.379	1.734
D: Manufacturers Industries	183.374	67.564	118.848	103.541
E: Production and distribution of the energy	6.426	1.439	4.512	2.227
F: Construction	61.971	107.335	99.610	83.879
G: Trade, repair vehicles motor, motorcycles and personal articles	130.882	105.158	84.988	83.331
H: Hotels and Restaurants	12.788	15.207	15.791	14.633
I: Transport, storage	16.067	20.886	17.580	14.353
J: Financial intermediation	16.149	21.492	22.703	42.997
K: Real state activities and of rent	143.940	181.083	163.468	230.992
L: Public administration, defense	22	20	0	0
M: Education	1.644	2.239	2.919	2340
N: Sanitary and veterinary activities	3.603	3.148	3.225	3.733
O: Other social activities	0	0	0	6.729
P: Domestic service	0	0	0	0
Q: Extraterritorial organisms	7.222	9.503	9.434	0
Without classifying	316	229	639	241

Source: Anuario Estadístico de España 1998
Instituto Nacional de Estadística (Spain)

CHAPTER SIX

THE EVENT AS A CASE STUDY: THE ATLANTA OLYMPICS AND ITS IMPACT ON SYDNEY 2000 ORGANIZATIONAL STRATEGIES

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Abstract

This paper presents a an overview of the lessons learned by successful and unsuccessful small businesses during the 1996 Summer Olympic games in Atlanta, Georgia and considers their impact on organizations involved in the 2000 Summer Olympic games in Sydney, Australia.

There were two major reasons for undertaking Olympic events analyses. The first is to undertake a longitudinal study of factors critical to businesses specifically catering to the significant increase in perceived demand for goods and services that arise when staging an Olympics. The second major purpose of undertaking Olympic events analyses is to apply the lessons learned from the longitudinal study as a guide for businesses gearing up for a future Olympiad, or similar large-scale special events.

Businesses expecting to make a quick fortune out of the Sydney Olympics are likely to be disappointed, as the experiences of entrepreneurs in Atlanta indicate that it would not be an easy task. The study found that the businesses most likely to be successful are ones that are already established with surplus funds to deploy into new ventures in which they can afford to take risks.

With the Olympics in Australia less than four months away, it appears that whilst the organisers have learnt and benefited from the painful lessons of Atlanta, there are still issues that are causing much concern even at this late stage of event organization.

INTRODUCTION

When Atlanta, Georgia, was first awarded the opportunity to host the 1996 Olympic Games, the business community anticipated a windfall in the profits generated from the increased business that the anticipated 2.5 million visitors would bring. Not only was the city of Atlanta itself expected to benefit, but outlying areas within 100 miles of Atlanta were also told by the *Atlanta Committee for the Olympic Games (ACOG)* that they could profit from the Olympic rush. Basing projections on the experience in Barcelona, Spain, where thousands of tourists each day visited towns more than 100 miles from the city, ACOG raised the hopes of many small business owners to the real possibility of significantly high returns.

What actually happened was quite different. The reality was that there was an army of carpetbaggers, traffic gridlock, crowd chaos, rubbish mountains, a bomb blast and, in many areas, abysmal retail sales. Transient shopkeepers and traveling salesmen deluged the city, to the horror and cost, of local firms. Such was the nightmare for local businesses of the Atlanta Olympic Games in 1996, that even zoo attendances fell. Atlanta zookeepers thought that foreigners would flock to the animals when not watching the athletes? Alas, this did not eventuate. More ominously, visitors showed little interest in Atlanta's bustling street stalls, upstart souvenir shops, small retailers, expensive restaurants, "cultural events", and suburban nightclubs. Even the neighboring states' tourist attractions were ignored.

Atlanta devastated many Georgian businesses. The tragi-comic denouement of the rush to cash in on the event saw container loads of unsold souvenirs, deserted restaurants and the fall from grace of once-thriving companies, ruined by their failure to maintain services to regular customers (Ham, 1999).

There are many lessons here for businesses hoping to cash in on the Sydney Olympics. How well prepared are they? What will be the real impact on their bottom line? Will the transport system cope? Do they need more or less staff and supplies? What is meant by "business as usual" during an event that is utterly unusual?

This paper first presents a commentary on business success and failure during critical periods of intense demand, specifically the 1996 Atlanta Olympics period. This commentary is largely drawn from the earlier published casework of the authors (see Muthaly, et. al, 2000). The paper then extends this earlier work by outlining the progress to date in the organization of Sydney 2000, and draws parallels with the experiences of Atlanta.

SUCCESS LESSONS OF ATLANTA

Many small businesses made money during the Atlanta Olympics. Niche players who carefully watched their risk faired very well (Muthaly, et. al., 2000). The more established the business, the higher was the probability of success.

An example of a success story reported in Muthaly, et.al, (2000) is the *wholesale restaurant equipment dealer* whose 20-plus year old business and its 53 employees experienced only positive financial and business results from the 1996 'Olympic experience. No new business lines were established for the games, and business continued from its one existing location in metropolitan Atlanta. The business simply expanded its current line of equipment and sold to ACOG and Olympic vendors and existing restaurants. Revenues from the Olympic Games increased by 70-80%, and the only additional expenses were for additional stock and overtime for some of its employees. Good overtime management resulted in carefully controlled costs. The only problems experienced by this company involved the difficulty of making deliveries because of the traffic and the closed streets. Many of the new start Olympic vendors bounced checks, but the existing company credit controls allowed the dealer to quickly repossess the collateral equipment.

The owner felt that much of the dealership's profitability was because he was able to anticipate the need for increased levels of stock and then buy that stock when the price was right. He was able to do so because of his years of experience in the business, and his knowledge of the industry. He also felt that a major competitive advantage for his company was that he knew the type of equipment that the local ordinances allowed. This knowledge allowed him to ensure that he had the right equipment to meet the local codes - an advantage not shared by new or out of town competition.

Another important lesson learned from other short term, high profile events used to his benefit in Atlanta was that leasing equipment to customers does not work. Most new start-ups are not financially eligible for the leasing financing. The dealer had previous experience with sell/buy back agreements, and used this extensively with vendors in Atlanta during the Olympics. Because of the company's established position in the industry, accurate information about the used equipment market was used to structure these deals, and the owner found that they were "very profitable" for his business.

The success of the Georgia-based companies during the build-up to the Atlanta Olympics is similar to the sense of hectic economic activity currently occurring in Sydney. This has also prompted consideration of the investment opportunities arising from such events. Some fund managers have gone out of their way to focus on Sydney-based stocks, to benefit from the city's boom.

> *Anyone looking for gold during the 1996 Olympics should have looked on Wall Street rather than in Atlanta. The Dow Jones industrial average surged 4.7 percent in the two trading weeks of the Olympic Games Some of the biggest gainers were Georgia-based companies that sponsored the Olympics [Walker, 1996].*

Investors considering a switch, should however, always be skeptical about claims for the economic benefits of major events – be they the Olympics, the Commonwealth Games, or other events such as the Formula One Grand Prix.

It is purported that economic benefits might occur anyway, and that other sectors of the economy, especially those that benefit from government funding, may suffer as money is channeled towards the events. Even the tourist industry may suffer as figures suggest that the number of visitors attracted to the Olympics is outweighed next year by the number deterred from visiting the host country by fear of crowds or increased costs (Salmons, 1999).

It must be noted that even if activities such as building and construction boost the economy leading up to the Olympics, the Atlanta experience indicates that there would likely be a slump after the event.

The key lesson from Atlanta in terms of success stories was that the companies that benefit most during the games are those that can generate large sales for themselves even without such a large-scale event. For Sydney 2000, these are such Sydney 2000 Olympic sponsors as the Foster's Brewing Group, the Seven Network and Ansett Airlines.

Beyond such large sponsorship deals, all the signs are that the growth in finance and services companies in Sydney is going on irrespective of the imminent sporting spectacular. In fact, as for Sydney's buoyant economy, fund managers point out that their big focus is on the financial sector, which is heavily concentrated in the city and is anyway one of the fastest-growing parts of the economy.

HORROR STORIES OF ATLANTA

Unfortunately for business owners, both those who rented expensive venues inside the city of Atlanta as well as those who looked forward to welcoming tourists to their charming historic southern towns, early disappointment turned into disaster. Especially for owners who started businesses exclusively for or primarily for the dream of acquiring Olympic gold, and who therefore invested large amounts of up front capital in anticipation of large profits, the results ranged from disappointing to devastating.

One of the main reasons was that, to the surprise of all, the masses never came. Further, those that came did not spend the money expected of them. The tour buses sat empty, the area's attractions remained relatively unseen by fresh eyes and few rental homes hosted vacationing visitors. For many entrepreneurs east of Atlanta, dreams of big profits melted into heartache.

The simplest explanation to this reversal of expectations is that the Olympic consumer proved a very different creature from the ordinary tourist or business traveller: an unpredictable hybrid – sports-mad, tight-fisted and uninterested in traditional tourist attractions. It has been estimated that on average, spectators at the Atlanta Games spent just $US15 ($22.70) a day after accommodation and transport. Normal business travellers, by comparison, would spend $US350 a day and ordinary tourists about $US100 a day.

Another case reported in Muthaly, et. al., (2000), was of a *home-rental business* owner who gained national and international media attention before the Games by putting together a highly organized effort to rent out double-occupancy "bed-and-breakfast" units, which included a bedroom and bathroom in people's homes. The homeowners were to provide breakfast, laundry service and transportation to and from Olympic events or on the MARTA rail system. The program was considered unique because homeowners were able to remain in their houses and avoid the risk of leaving their homes open to unscrupulous renters. The units were to rent for US$925 to US$1,325 a night. The owner was to take 20 percent of the fee, the homeowner to keep the rest. She expected to make millions, she said. By the spring season prior to the games, The owner had 2,700 available units, but business already was falling flat. In May 1996, she sold shrimp in the front yard of her south Rockdale County home to pay the phone bill. In June, business had not gotten any better. After 17 Olympic days, the owner rented out 10 units, nine of them after she dropped the amenities and then dropped the price to about US$300 per night.

"It really was a bomb," said an owner, who refinanced her house to raise cash for the venture, spent US$8,000 to remodel her garage into an office and worked five years on the project. She lost more than US$23,000. Her only real revenue was the US$10 application fee each client paid to register a home with her service.

The owner said her business failed for two reasons. "My program could not work until supply and demand kicked in, which was when the hotel rooms were gone," she said, pointing out that hotels rooms never actually sold out despite the pre-Games hype. "I think the concept of private housing was totally rejected". [See also Sanford, 1996]

Another horror story reported in Muthaly, et. al., (2000) was a business dealing in *frozen lemonade stands*. This company was started as a new venture to take advantage of an opportunity to provide a frozen lemonade drink to visitors at the Atlanta Olympics. This is a franchise with home offices in Rhode Island - in the Northeastern United States, about 800 miles from Atlanta.

The concept for setting up sites during the Olympics was to earn needed capital to continue the business after the Olympics, to gain exposure for the product which was new to the Atlanta area, and to test some marketing ideas. There was modest support from the franchiser - primarily in the form of reduced wholesale prices and some corporate staff who came to Atlanta to attend the games and to work in the stands.

The number of employees varied from a handful to nearly 50 at the busiest time of the Olympics. The overall cost of site rental for 4 fixed locations and 3 roving locations was US $128,000. Six months after the games, the owner was still trying to determine how much money he lost due to:

- problems with a complicated City of Atlanta business permit process,
- inadequate inventory control,
- stiff competition from Olympic corporate sponsors such as Coca Cola,
- competition from a competing lemonade product,
- competition from hundreds of other smaller food/drink vendors which the City of Atlanta allowed to operate where only 10 were supposed to be,
- the city's seemingly arbitrary closing of streets where he had set up kiosks,
- lower than expected attendance at the games, and finally,
- the Olympic Park bombing which kept significant numbers of attendees away from the downtown area.

"I remember driving down the deserted interstate on the first morning of the games, sobbing out loud. There was no traffic, and no traffic meant I wasn't going to make any money, and I had a payroll to meet and money that I had to repay to my friends."

The owner felt that his original plan had been too ambitious. Too much money was spent for permits, which were not worth what they sold for. They provided no territory protection. Because of the complexity of the Olympic site, the owner felt that multiple locations were not necessarily better than one good location.

When things started to "fall apart" - non-permit vendors setting up next to the business, changing traffic patterns, or employees not showing up for work, etc. - then the vendor found overwhelming the difficulty of moving supplies from one location to another. In addition to these unexpected circumstances, there were situations under control by City officials such as street closings that caused havoc to the vendor's plans.

The owner also felt strongly that untrained staff could be worse than no employees at all. Going into an event such as the Olympics and having employees in multiple locations means that in most cases there will be wasted product, inadequate employee supervision, poor inventory control, and transportation problems.

Finally, unanticipated, unregulated competition means that prior sales projections may turn out to be meaningless. The owner would never undertake this type of activity again, unless he felt that more guarantees were available from the governing institutions that would protect early investments by first movers. He felt that the unregulated *ambush tactics* of unlicensed vendors who were not controlled and simply moved quickly to a new location when shut down by authorities at the old location cost him most of his planned profits. He senses that the authorities just "gave up" after a while, and that in downtown Atlanta during the Olympics it became a war of survival - all against all - with vendors' carts pushing against each other to occupy the prime locations.

It is now clear that many Atlanta businesses failed to prepare for the shock of the Games: new transport routes diverted customers from shop-fronts, suppliers failed to deliver goods, and efforts to "home-source" employees collapsed due to computer glitches.

GENERAL OBSERVATIONS FROM THE ATLANTA EXPERIENCES

There are three factors that directly contributed to the success and/or failure of the small businesses involved in the 100th Olympiad in Atlanta. These were separated by Muthaly, et. al., (2000) as follows:

- *Logistical issues* related to traffic planning, street closure, garbage disposal etc., during the period of the Olympics.

  The City of Atlanta failed to adjust traffic to benefit vendors. In fact, they closed off some streets in such a way as to divert the flow of tourists away from the prime in-city locations they had leased at premium prices. The City also failed to provide promised electrical power to vendors who could not operate without electricity. It also failed to provide carts and tents that vendors contracted for.
- *Business issues* related to making money in periods of concentrated demand. These include, forecasting demand, strategic planning, cost control, asset investment, equipment leasing, granting of credit, collection of debts, inventory control, etc. In Atlanta, business owners got greedy and overextended themselves in hopes of "striking it rich?"

  Many companies failed to recruit the necessary extra staff, and others were under-resourced. Professional services – lawyers, accountants, doctors – were hit especially hard. There was a lot of lost productivity among white-collar services in the run-up to the Games. Whole practices of lawyers stayed at home to work, but often they had no adequate technical support. The severity of the downturn was almost equivalent to the Christmas period (Ham, 1999).

  Visitors didn't spend the kind of money people had expected. Restaurants were waiting for droves of diners, but my Olympic guests had no interest in eating out. They were spending so much time getting to venues and sitting through events that by the end of the day, they wanted to relax in front of the television (Geewax, 1996).
- *Infrastructure issues* such as licensing, permits, employee supply and training and crisis management (e.g. handling a bombing). Much of these issues relate to government and quasi-government (ACOG) support of small business initiatives. The culture of Atlanta for small business success was neither well organized nor hospitable. For example, many licensed private vendors complained that the city granted unlimited permits and then failed to enforce its vending ordinance. Vendors who signed a lease in January claim to have paid US$10,000 for the same space leased for US$1,000 by another vendor at the last minute. Hundreds of such unlicensed vendors operated freely in parking lots and on the streets without overhead. They could, therefore, offer cut-rate prices and skim off much of the business from licensed vendors who paid as much as US$20,000 each for a kiosk-space.

Even for the big sponsors, Atlanta was disappointing. As a privately run event, contracts were tendered as the need arose, and often awarded to friends rather than the best suppliers. Cash-flow problems hampered venue construction; and many venues were not up in time for the Trial Games (about 500 days prior to the opening ceremony). The sponsors had to use temporary sites to store and test their equipment. There were severe delays in connecting a power supply to the main stadium, with many fences being erected "20 minutes" before the opening ceremony. Contractual deadlines were missed. Atlanta, for many companies, failed to deliver.

Such complaints paint a picture of an unprofessional operation by an inexperienced promoter who failed to manage such a giant event. Some of the questions they raise about contractual obligations have taken the city into litigation. The real tragedy is that a county-fair atmosphere with tasteful carts and carefully spaced vending operations could have enhanced Atlanta's image. If professionally done, that look need not have cost any more than the cheap, overcrowded vendor carnival that visitors encountered (Ezzard, 1996).

The above provides an indication of the three issue categories that need to be addressed by the *Sydney Organising Committee for the Olympic Games (SOCOG)*. How SOCOG is handling the issues will be considered next.

SYDNEY 2000: THE REPORT CARD

The Sydney Organising Committee for the Olympic Games (SOCOG) has been distracted over the last two years due mainly to two "scandals" that have dominated the attention of the media for extended periods. The first was an alleged bribery scandal that resulted in some senior members of Australia's Olympic movement being forced to resign. The second, was the "tickets issue fiasco" in which prime tickets for the games were withheld from the public and reserved for issue to the "rich" at premium prices. Here too, senior members and State Ministers connected with SOCOG had to resign from their posts, and/or apologise to the general public.

Despite these distractions, SOCOG remained effusively self-confident. In July 1999, John Moore, SOCOG's group general manager marketing said:

> *"One of the things Australia has done is to create habitual and attitudinal changes well in advance – so people start thinking in a chain reaction, asking themselves, "What do I need to do to prepare, to recruit extra staff, suppliers?" (Ham, 1999).*

SOCOG believed that at the time it had reason to feel pleased with itself: Sydney seemed well prepared. The venues were built and many contracts fulfilled. Major sponsors were on track to meet their contractual obligations: Major companies were well on track to fulfilling their contracts. For example, BHP had supplied 130,000 tons of steel for the venues (plus the dome that holds the torch) and silver for the medals. Southcorp was ready to meet wine order (60,000 cases), and Bonds, famous for singlets, was on track to provide 500,000 different apparel items for volunteers. Meanwhile, Reebok was measuring the Australian team for costumes and uniforms; Fuji-Xerox was to fit and operate some 3,000 copying machines, sending millions of competition results to judges and the media; Swatch and IBM was to time the events; Carlton & United, the makers of Fosters beer, was busy modeling the beer intake expected during the games; Linfox was handling logistics; United Parcel Services was to serve as the Olympic Courier; Cleanevent and others were to remove the rubbish; and Streets, the ice-cream makers, was to supply 2 million ice blocks.

However, by December 1999, SOCOG was under significant pressure after sportswear giant Reebok cancelled a $10 million sponsorship deal and sued for damages on the same day the executive blamed for the recent ticketing fiasco was sacked. The company said in a statement that:

> *"The contract has been terminated because SOCOG has chosen to enter into conflicting arrangements with Reebok's competitors." (Moore 1999).*

Reebok was the first sponsor to cancel its contract with SOCOG in what is emerging as a new crisis born out of the controversy over the tickets-issue fiasco of reserving 840,000 of the best seats at the Games for premium package buyers.

Another major sponsor, the television station Channel Seven, stepped up pressure on SOCOG by writing to the Chief Executives of all sponsor companies in Australia inviting them to nominate a day when they could get together to force SOCOG to modify its premium ticket sales plans. They cancelled their contract with SOCOG a few days after Reebok. Ansett, the airline, also joined a growing chorus of sponsors publicly criticising SOCOG's treatment of them (Moore, 1999).

While some of the companies with "ruffled feathers" have been calmed down, and different sponsors (e.g. Nike instead of Reebok) have replaced others, serious concerns remain about SOCOG's readiness for the Games. A full urban plan of the city had still not been prepared by March 2000 delaying the efforts to prepare of companies involved in the games. The Atlanta experience has clearly shown that Sydney's transport system and infrastructure will be pushed to breaking point. Key contracts – for catering, security, hardware and many other areas had not been filled by December 1999, with less than one-year to go to the games (Ham, 1999). The official Olympic petrol supplier required for pumping of millions of litres of fuel into the Games machine had not been decided till late February 2000. By March 2000, although many of the contracts have been fulfilled, those winning the contracts have complained that the delaying of awarding them the contracts has meant that there is very little time for planning in terms of the logistical, business and infrastructure issues outlined earlier. It is, therefore not unreasonable to believe that the Atlanta horror may yet visit Sydney 2000 unless businesses wake up to what is about to hit them.

Let us, therefore, consider in detail the three issues highlighted in the Atlanta case studies:

LOGISTICAL ISSUES

Traffic Congestion

The NSW Chamber of Commerce shows that many Sydney companies are woefully ill prepared. Its survey of Darling Harbour found that 47% of businesses were not even aware their site was the second biggest Games venue. As a result, the Olympic Roads and Transport Authority (ORTA) acknowledges the possibility of a crisis. Ordinary traffic in the city must be greatly reduced to accommodate the huge influx of visitors and goods. ORTA expects that an extra 1.6 million people a day will descend on the city centre, with 43,000 tons of Olympic freight, involving 86,000 deliveries across 135 sites, shuttling daily across town. To prepare for the invasion, ORTA urges companies to find any means possible to reduce their reliance on public transport. Employees should be allowed to work from home or take leave during the Games, shifts should be rostered at less busy times, supplies should be rostered at less busy times, supplies ordered and stored in advance, and some firms, where practical, should move to temporary locations (Ham, 1999).

It is difficult to say how bad congestion and re-routing may get. To handle the huge problem, ORTA is working on a pilot project with leading employers, including Carlton & United Breweries, Star City (Casino/Hotel) and Westpac (Bank), to be expanded into a 15-month program involving hundreds of companies. It is also producing a "transport kit" for all industries involved in the Games. It is hoped that these would be ready in time for the Olympics.

Site Location

It is slowly dawning on other local companies – especially hotels and restaurants – that the Olympic transport system may kill off their cherished Olympic windfall profits. They fear being left out of "the Olympic loop", and accuse Games organizers of failing to provide a comprehensive urban plan of the Olympic city.

However crude a measure, Atlanta offers guidance to the transport dilemma for businesses. In Atlanta, those who made windfall profits were in very "site specific" areas. There were intense areas of activity in normally quiet places. It all related to how the transport operated. Popular restaurants where people normally went tended to do badly, while areas near venues did unbelievably well.

The restaurant causalities will be those in "poor locations", i.e. those not served by major Games transport routes, running to Homebush, Darling Harbour and Bondi Beach. Normally cash-rich restaurants and clubs in the eastern and northern suburbs of Sydney may enjoy the expected windfall. Sydney may find its most exclusive restaurants snubbed.

In Atlanta, Olympic spectators apparently preferred fast food to expensive cuisine and cheap, convenient hotels to expensive boutiques – a shock to many lavishly priced Atlanta hoteliers and restaurateurs. If the same occurs in Sydney, dispensers of junk food should flourish. In anticipation, McDonald's, a leading sponsor, is building an outlet in the Olympic village.

Garbage

This is the one word focusing the minds of SOCOG and Sydney City Council that have spent many long hours assessing the waste disposal needs. While the key rubbish-removal contracts have been allocated – to Cleanevent, SITA-BFI and Visy Recycling – some specific contracts are yet to be filled (as of March 2000). Although one insider noted in July 1999 that, "There's still a lot of [rubbish] modelling to be done on how to service the waste problem" (Ham, 1999), by March, 2000 this had still not been done. The possibility of garbage mountains in Sydney appearing during the Olympic period is therefore very high.

BUSINESS ISSUES

Contracts

At the stage of the lead up one-year prior to the Sydney Olympics, the major finance and planning issue for most businesses was the preparation of the 'Business Plan' in order to win one of the hundreds of major contracts still to be filled. They were hoping to be informed sooner, rather than later, that they had, in fact, won their tendered for contracts. However, by March 2000, a number of major contracts had still not been decided. For those businesses that have already won major contracts, there was still time for planning and forecasting. For example, Spotless Services, P&O and Sodexho who have won the catering contract for the Olympic Village, plan to serve 30 million meals at the Olympic games period. (Spotless has estimated that it will need 120,000 pieces of fruit per day!).

Of the major contracts yet unfilled by March, 2000 were those for: health insurance; medical equipment and clinics; warehousing systems and storage; hardware and paints (including tools, nails, buckets, etc; Olympic village entertainment (from discos to entertainers); sunglasses; sunscreen; fresh foods/confectionery; and wheelchairs.

In addition, multi-million dollar contracts such as those for security; crowd control; fresh-food catering and the catering of 'specialty' food to meet the demands of the specific requirements from athletes and visitors from around the globe (e.g. Halal meat for Muslims) remained unfilled.

With so many major contracts un-filled, SOCOG must be concerned with the possibility of a number of contracts already awarded being cancelled.

Reebok's decision in early December 1999 to cancel their contract meant briefly that Australia's Olympic athletes had no supplier of competition clothing and leisure wear. The SOCOG chief executive, Mr. Sandy Hollway, "strenuously denied" that the organization was in breach of any contract and said it would vigorously defend any action by Reebok to end its sponsorship (Moore, 1999).

Mr. Hollway said the Reebok contract was worth close to Australian $10 million, that Reebok was already A$500,000 in arrears with SOCOG and termination would cost SOCOG another A$1.8 million in cash and A$3.5 million in kind.

By the middle of December 1999, Nike stepped in to take over the requirements of the cancelled Reebok contract. However, along with sponsorship has come the requirement to abide by SOCOG's *Code of Labour Practice*. This is a pioneering document that places an obligation upon Olympic Licensees to abide by core International Labour Organization standards. Nike labour conditions have been put under a spotlight by the Australian media, embroiling SOCOG in a new row with Unions in Australia and overseas demanding that SOCOG stick to its Code of Labour Practice (Heinrichs, 1999).

Spending

Many companies and industry groups are already investing millions of dollars preparing to be "ready" for the games. Travel and leisure companies are gearing up for a windfall, with plans to hire extra staff and services despite the disappointment at Atlanta, where the Games-related tourism failed to meet expectations. Australian travel companies argue, however, that this country is remote and relatively undiscovered. The expectation is that the spectators' curiosity to explore the host nation may be greater than in the US.

This is particularly the case of the Tourist Bureaus in Australian States outside of New South Wales (the state in which Sydney is located). Anticipating that many Sydneysiders would rather be elsewhere when the Games commence in September 2000, Tourism officials in the State of Victoria are having a quiet word to Sydney real estate agents. The "Escape to Melbourne" strategy targets Sydneysiders keen to rent their homes and leave the city during the Olympics. With some 5,000 Sydneysiders expected to rent out their homes to Olympics visitors and leave town for the Games, Sydney real estate agents are being co-opted by the Victorian government to become travel agents on behalf of the state, offering Olympics escapees attractive Melbourne holiday packages. The Victorian government estimates the soccer fixtures will generate between a $30m and a $70m, depending on the draw, which is yet to be announced, and the number of international and interstate spectators the games attract to the state.

Another money-spinner for the non-Olympics states is pre-Olympics training and acclimatization. The Victorian government has in-principle agreements with 63 sporting teams from 21 countries, promising economics benefits to the state of a $10 million. In the State of South Australia, more than 60 teams from 15 nations are expected to pump $20m into the local economy. In Victoria, already there are 20 confirmed international conventions that will be held at the center in 2000, about a third of them during the Sydney Games.

These international conventions – including the World Economic Forum Millennium Summit in September 2000 – will attract between 1,000 and 2,500 delegates each. It is estimated that each international convention delegate will spend an average of a $500 a day - in addition to accommodation – compared with national delegates who will spend an average of a $300 a day.

The Queensland State Government has been even more successful in attracting pre-Olympics training dollars. To date, 124 sports teams from 15 nations have committed to setting up pre-games training camps in Queensland in the weeks leading up to the Games. These teams will contribute $80m to $100m to the State's economy. As well as the economic benefits of the training teams calling Queensland home, there's the boon of local companies winning Olympics-related business. The Queensland government's Olympic 2000 Task Force originally estimated the Queensland businesses would benefit to the tune of a $50m from Olympics business activity. The estimate was well off the actual results, and the government couldn't be happier about it. So far, small and medium businesses in Queensland have won Olympic contracts worth a $80m, while national companies based in Queensland have notched up a $120m in contracts.

Many of the benefits of the Olympic Games will be longer term. The National Tourism Forecasting Council estimates that 1.6 million overseas tourists will come to Australia in the seven years to 2004 – creating 63,000 jobs – as a result of exposure generated by the Games. With 50% of those visitors expected to visit Queensland, a Queensland tourism official notes:

"Our best year for tourism will not be 2000, but 2001 and 2002" (Ham, 1999).

Corporate Sponsorship (Relationship Spending)

According to the best estimates, some a $4 billion worth of business will be conducted before, during and after the Games. The a $2.55 billion cost of staging the Olympics will be more than paid for in benefits to Australian companies (Dabkowski, 1999).

SOCOG estimates that up to 80,000 business leaders will attend the Games during 17 days of competition after talking to sponsors and their invitees. As many as 20 per cent will be international visitors and their average length of stay will be three to five days. For some, the logistics of looking after guests at the Games will involve a small army.

The "Team Millennium Olympic Partners" for Sydney 2000 are as follows:

- *Worldwide*: Coca-Cola, IBM, Visa, John Hancock, Fuji Xerox, UPS, McDonald, Kodak, Samsung, Panasonic and Sports Illustrated (Time Inc.).
- *Australia*: AMP, Westpac Banking, Telstra, BHP, Westfield, Ansett Australia, Energy Australia, Swatch, News Ltd, Fairfax, Channel Seven, Holden, Pacific Dunlop.

Westpac Bank, one of the above Team Millennium sponsors, is investing up to $50 million each on their Olympics campaign. It has booked two hotels to entertain as many as 10,000 guests (the exact number is confidential), who will be ferried to and from venues in 40 buses that the bank will have at its disposal 24 hours a day. Companies such as Westpac have also taken up Channel Seven's Olympic-related advertising package worth almost A$14 million to advertise their link with the Games during the coming year.

The real lift to the bottom line will probably come in the hospitality packages still being finalised, the so-called "relationship building" with customers during the actual events. The "lessons" from Atlanta in terms of forecast vs. actual costs incurred and forecast vs. actual benefits obtained is shown in Figure One.

FIGURE 1

Atlanta Olympic Sponsorship Cost-Benefits

	Less than	**As anticipated**	**Greater**	**Significantly Greater**
Forecast vs. Actual Costs	0%	38.1%	14.3%	47.6%
Forecast vs. Actual Benefits	9.5%	9.5%	38.1%	42.9%

Source: The Age, Sept 4, 1999

However, many of the sponsors of Sydney 2000 cannot hope to emulate the exposure generated by the Atlanta Games. In terms of overall benefit, when you look at the Atlanta Olympics, the sponsors achieved recognition with 150 million people as a result of being involved in the Olympics. The sponsors are, however, not dealing with a market that size in Australia. The size of the returns is probably going to be harder to assess in a market of only 18 million people.

Austrade is one of the few organizations that has completed an empirical breakdown on the benefits to business of the Olympics. It has done an analysis of the wider business benefits, taking into account the gains from other initiatives aimed at leveraging business from the Games. According to Austrade, there are 24 Team Millennium sponsors and each are investing up to a $50 million on their association, worth a $1.2 billion alone. Other supporting sponsors are pouring in millions more, most analysts believe the sponsors would be looking for a combined return of at least a $2 billion for their effort. Not that earning a dollar from an Olympic sponsorship deal will be easy. A survey on 1,500 people conducted in January 1999 by Sweeney Sports found that 58 percent could name an Olympic sponsor, but only four sponsors recorded an awareness of more than 10 percent. The top 10 perceived Olympic sponsors were: Telstra, Westpac, Ansett, AMP, Qantas (non-sponsor), Coca-Cola, McDonald's, General Motors-Holden, Commonwealth Bank (non-sponsor) and, at equal 10th position, Visa and National Australia Bank (non-sponsor). At the same time of the survey, some sponsors such as Fuji Xerox, Fairfax, Energy Australia, News Ltd, Samsung and Panasonic achieved awareness levels of less than 1 per cent.

INFRASTRUCTURE ISSUES

Ambush Marketing

For Sydney retailers, initial euphoria is giving way to well-concealed fear. They fear an invasion of fly-by-night outfits, similar to those that hit Atlanta. They fear transport chaos. And they fear carpetbaggers taking their business. Indeed, SOCOG is alert to "dozens" of "ambush licensing programs" hoping to cash in on the Games, trying to look like Sydney 2000. For example, SOCOG is investigating an organization called "Australia 2000", that is attempting to trade off the success of the official Sydney 2000 by selling its generic logo to hundreds of carpetbaggers.

Staff Training

Untrained employees and inadequate employee supervision was a major issue in the Atlanta Olympics. It appears that it will be no different in Sydney 2000. While some companies are well prepared, e.g. Spotless Services who are already planning to recruit and train 3000 extra staff as part of its contract to feed the Olympic village, others remain ill-prepared.

The problem for most businesses will be finding experienced staff. Thousands of extra workers will be needed to meet their varied demands, and they will have to be housed and transported. In Atlanta a population the size of Australia's – 18 million – lives within a three-hour drive of the city, providing a giant pool of casual labor. Given Australia's size, such a labor pool will not be available in Sydney, even if some workers are bought in from other states. Many companies are therefore, 'casting the net wide', to Singapore and Perth, for experienced staff. It is expected that Olympic village staff, from chefs to waiters, will have to be screened, trained and 'housed' temporarily, possibly in Britz Tours campervans.

Security Clearances

Chubb Australia, the country's biggest security firm, is expected to employ an extra 1,000 guards to meet the anticipated demand, bringing to 4,000 Chubb's army of guards designated for the Games. Housing the extra security workforce will be a big challenge. For example, guards on Olympic contracts will have to be billeted among the friends and families of existing employees.

The exacting security standards are far higher than those to which Australian firms are normally accustomed, and subject to, international scrutiny from sensitive nations such as Israel. The guards will have to be vetted by the Australian Federal Police and the intelligence organization ASIO to avoid a repeat of Munich 1972 when Israeli athletes were killed during a Palestinian terrorist attack.

Special Holidays

Larger retailers – those with no clear Olympic input – and providers of non-Olympic related professional services are being advised to wind down their operations during the event. Some Sydney organizations may decide to wind back substantially, because they believe people will not be expecting their services, e.g. lawyers and accountants. The Olympics period is unlikely to be the time when individuals will be considering their tax return or to go out and buy a fridge or dishwasher.

The big accounting and legal firms anticipate a serious downturn in normal business levels. Many such professional firms expect a fall-off akin to the Christmas holiday period. Many are encouraging staff to take leave, and expect to be operating on skeletal staff in some areas. Others will close down altogether.

Contingency Planning

Even companies that are not directly involved with the games are still considering alternative scenarios and plans for the Games period. In this area companies are in very different stages of readiness. The Star City Casino-Hotel complex is regarded as a model of pre-Games rectitude, and has already set up a non-perishable warehouse to avoid having to rely on supplies during the event.

BHP, like many large companies with Sydney operations, is already assessing the impact on its steel plants and staffing levels (freeing up 400 employees as Games volunteers). BHP has a steel plant next to the Rooty Hill softball venue, a distribution centre at Chullora near the Olympic Park, and another next door to a 1,000 vehicle Olympic bus shelter – in short, a logistical nightmare.

CONCLUSIONS AND NORMATIVE IMPLICATIONS

The commercial activity spurred by the Sydney Games should extend well beyond 2000. Various studies by professional accounting firms have estimated that the Games will generate Australian $6.5bn in extra economic benefits, spanning a 12-year period that began in 1994-95; and that 10,000 jobs would be created in NSW annually during the six years leading up to the Games, 24,000 in the Games year and 3,000 part-time jobs annually during the five years thereafter. Most of these will, however, be casual or temporary jobs (Ham, 1999).

Businesses expecting to make a quick fortune out of the Sydney Olympics are likely to be disappointed, as it would not be an easy task. Well-organized companies, both large and small, will make good profits in Sydney 2000 – but only for two weeks. As the lessons from Atlanta indicate, it's easy to overestimate just how fast and furious that fortnight's likely to be. The study by Muthaly, et.al (2000) found that the businesses most likely to be successful are ones that are already established with surplus funds to deploy into new ventures in which they can afford to take risks (see also Abernathy, 1997). Businesses interested in participating in the Sydney Olympics should start working closely with SOCOG (ACOG's equivalent in Australia) far in advance to blend their strategic plans with that of the Sydney committee. For example, they should jointly work to prevent "ambush marketing", a phenomenon that is widely utilised in big events. SOCOG should police this closely, as there are already signs of this taking place in Australia as we approach the Olympics of the new millennium (Flint, 1998).

The Olympics in Atlanta generated not only core construction projects, but also triggered a burst of activity in remodelling, road construction, and other infrastructure work designed to make Atlanta more appealing to the millions of visitors watching the Games (Johnson, 1996). SOCOG will have to ensure that such infrastructure projects are well managed and small businesses need to bid and procure these projects.

The NSW Government will spend $3.3 billion on construction in the lead-up to the 2000 Games, with two-thirds of that going on new sporting facilities and the rest on improvements to Sydney's road, rail and airport infrastructure. However, that sum has been spread over six years, and the Government has been very careful to encompass it within its annual budget for spending on capital works. Therefore, if the budgeted expenditure levels can be maintained, on the day the Games open the State's taxpayers will find themselves no deeper in debt than they would have been in the normal course of events.

Two consequences flow from this, however. One is that spending on the construction of public schools, hospitals, police stations and so forth has been deferred in favor of simultaneously upgrading to state-of-the-art standard the facilities provided to almost every conceivable sport. The other is that all this Olympic-related spending has done little to boost employment and the economy beyond what the Government's usual capital works program would have done (Gittins, 1999).

The Government has also underwritten the budget of the Games organizing committee, covering the revenue to be earned and expenses incurred largely during the period of the Games themselves. So is this where the profit killing's are to be made? Probably not, although there's big money involved in the sale of TV broadcasting rights, sponsorships, ticket sales and the like. Equally, there are big costs in staging the Games. Incomings and outgoings are likely to be roughly equal, leaving a small profit or even a small loss. That is, overall, the State government's expectations. What about private enterprise? What about all the visitors, the accommodation, the restaurant meals, the sales of souvenirs, the sightseeing?

Post-mortems show that the number of overseas visitors is frequently less than host-city business people were expecting. Most visitors don't stay for the full period and a surprisingly high proportion of them manage to bed down with friends or relations. Restaurants can be less than full at night because visitors retire to their rooms, order in junk food and watch more events on TV.

Then there's the tendency of many locals to shut up shop, turn their homes over to visiting relatives and retreat to the hills for the duration. Prophecies of chaos and confusion often prove self-defeating. None of this says the commercial boost from the Games amounts to nothing – however, the indications are that the size is probably vastly exaggerated. It must also be clearly understood that Australia's population is less than 10% of that of the U.S.A., and visitors from the host country would not be as extensive as that in the Atlanta Games. In view of this fact, Olympic organizers must ensure that Australia is marketed from a macro perspective rather that just focusing in one city (Sydney).

Visitors from across the Northern Hemisphere and other destinations could be better enticed to visit the whole of Australia (Melbourne, Adelaide, Perth, Brisbane, Gold Coast, and the parts of the outback) rather than just spend all their savings in just one city (Sydney). For this to take place there perhaps should have been a unified approach from all the different states in Australia to project an image of the "Australian Olympic Games" rather than just the "Sydney 2000" games. This strategic option may have enticed a larger number of visitors for both the Olympics and also provide a boost for Australia's tourism industry. It is now too late, however, to project this image, and therefore, it remains to be seen if Sydney 2000 will benefit the rest of Australia.

The Olympics in Australia is less than four months away, and hopefully, the varied interested parties would have learnt and benefited from the painful lessons in Atlanta. The Case Study lessons presented in this paper provides specific lessons on how businesses can make or lose money during special demand conditions such as during an Olympics period.

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SPACESHIP BSB
A UNIQUE EDUCATIONAL LIFE FORM IN THE GALAXY OF PENN STATE UNIVERSITY

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Abstract

Welcome aboard SPACESHIP BSB! Her registered name is the Bachelor of Science of Business (BSB) Baccalaureate Program. She has twelve official docking platforms, which lie, in selected geographic locations within the Commonwealth College (CC) System of Penn State University. These docking platforms include PSU Hazleton.

For the past few years, Penn State University's Main Campus at University Park has been operating at full capacity. Consequently, the faculty and staff at these alternative site locations that were primarily two-year "feeder sites" were encouraged to reorganize and to establish selected baccalaureate programs at their respective locations. By "feeder site" is meant that students fulfill the first two years of a four-year course of study at an alternative Pennsylvania State University campus other than its Main Campus at University Park. In order to preclude the cannibalization of the business programs on the main campus, the BSB program focuses on different business specialties.

This paper examines the journey of SPACESHIP BSB in its continuing effort to maintain the viability of its programs while sustaining its educational excellence. As such, the emphasis of this paper is on off-site campuses and the struggle of these subsystems to define their place within their particular regional spheres of influence. This paper invites its readers to dialogue on issues of surviving in the chaotic world in which we live. Finally, this paper might serve as an interesting catalyst for business organizations to establish viable executive training programs beyond the capacity of their home-based locations.

KEYWORDS: Satellite campuses; business education; executive education; strategic change; educational institutions.

INTRODUCTION

The year is 2000 A.D. The inter-galactic location is essentially anywhere in the Commonwealth College under the aegis of Pennsylvania State University. Pennsylvania State University, affectionately referred to as Penn State University, is a multi-campus public land-grant university. While about 40,000 students attend the main campus, another 40,000 or so attend various other Penn State University campuses around the State of Pennsylvania.

Over the past decade, Pennsylvania State University's Main Campus at University Park has been operating at full capacity. Paradoxically, off-site locations collectively known as the Commonwealth Educational System (CES) were experiencing decreased enrollments, budget cuts and consequently, low morale developed among the faculty. Something was wrong. Something was not working as well as it should have been in this loosely bound association representing a conglomeration of educational and technological programs. On July 1, 1997, the CES officially became the Commonwealth College (CC). Three other Colleges such as Penn State Altoona were also established. The Commonwealth College became self-sufficient and was empowered to strategically manage its own future. Some of the fallout from this was increased prestige resulting in a more formal presence in the Penn State System. For example, the Dean of the Commonwealth College speaks on behalf of the Commonwealth College on the University's Council of Academic Affairs.

In addition to telling the BSB story, it is hoped that this study effort will ultimately constitute the basis for a longitudinal study of evolution of the BSB program and the success of its graduates. If Wheatley (1999) is correct in considering that power in organizations equates to the capacity generated by relationships, then it is important for us to reflect on the human energies expended aboard the SPACESHIP BSB. Although the success of SPACESHIP BSB is sought in the long-term efficacy of its program, the real story will be told in the success of its graduates. It is recognized that success is a slippery slope and often in the eye of the beholder, but the success that the BSB is seeking is the continued recognition that it does, in fact, educationally prepare its graduates for life in the world of business. Of course, time is the key to such recognition. In the meantime, the journey into the 21st Century has already begun. Please, buckle up and enjoy the ongoing ride toward solving the educational challenges of the new century. In order to better enjoy the journey, please read the flight instructions. They will help guide you on the theoretical underpinnings of our journey.

FLIGHT INSTRUCTIONS ON SURVIVAL

According to Bennis & Mische, most organizations of the 1980's and 1990's won't survive the next century unless they reinvent themselves through the address of the five essential elements of reengineering:

(1) bold vision
(2) systemic approach
(3) clear intent and mandate
(4) specific methodology (how to)
(5) effective and visible leadership. "They must become leaner, more competitive, more responsive and more aware of their customers' needs" (Bennis & Mische 1995, jacket.)

Using the Bennis and Mische framework, the BSB program fits as follows:

A BOLD VISION

The Commonwealth College is committed to engaging the present while creating the future through both relevant and responsive educational service to the Commonwealth of Pennsylvania.

A SYSTEMATIC APPROACH

Reflecting on the problems that colleges experience in adapting to change, Bonvillain and Murphy (1996) state that the legacy of Adam Smith is that organizations which intend on gaining access to the needs of the public must focus on the competing forces of the marketplace. They continue by stating that although many in academe feel that "...education itself should not be subject to the dehumanizing influences of market forces ... failure to address such critical issues as market forces can be, and often is, disastrous." (pp.143-144). Consistent with this point, input was collected from PSU administrators, the faculty, students and many external stakeholders. The finding was that the Commonwealth Educational System (CES) was in need of change.

The analysis was sufficiently thorough in that feedback was sought from all the educational off-sites of Penn State University as well as from the various Penn State stakeholders across Pennsylvania; i.e. community leaders, politicians, advisory groups and presidents of other colleges and universities. The question to Penn State's various and sundry stakeholders ultimately became "How can we best serve the educational needs of your geographical region?"

These efforts became known as the "Plan for Planning." When the President of Penn State University spoke to one of its primary stakeholders -- students in attendance at various off-site campuses -- the resultant feedback seemed to suggest that many of the students desired to not only start, but to finish their baccalaureate requirements at their regional campuses. In essence, a number of these students who were "non-traditionals" (beyond 21 years of age) were finding it geographically impossible to finish up requirements for a four-year degree on Main Campus.

CLEAR INTENT AND MANDATE

As a result of this environmental scan, it became obvious to the Board of Trustees that the viability of the CES needed to be addressed. The President of the University, Graham Spanier, acknowledged their issues of concern. As the strategic force for the University, he, too, was committed to the issue of educational excellence in general, and concerned about the continued viability of the CES in particular. Consistent with the unrest of the CES students, some of the (CES) faculty themselves wrote to the Board of Trustees also voicing their discontent with the CES situation.

SPECIFIC METHODOLOGY

To gain a consensus of how the many stakeholders felt about the CES situation, focus meetings were held across the state across the state. These meetings included both internal and external publics of Penn State University. From the results of surveys administered at the various locations, not only was a business degree requested to be established at some of the regional locations, but specific educational competencies were stressed by local organizations. These competencies included focus on such topics as: creativity, strategic planning, verbal and written business communication skills, interpersonal skills (working in teams), and technological competencies.

Once it was determined that a general business degree would best complement the needs cited by the regional publics, the Commonwealth College under the leadership of its first dean, Robert Dunham, who was also the former Dean and Vice President of the CES worked closely with Penn State University President Graham Spanier. Another prime mover was Dr. Jack Royer, who led the challenge to develop a curriculum where students must not only feel comfortable using the latest technologies in the workplace, but also must understand the conceptual framework of the business processes that will take advantage of these technologies. As a tribute to the efforts of Dr. Royer, individuals across the BSB Galaxy affectionately call the BSB Program "Royer's Brain Child." The current dean of the Commonwealth College, Joseph C. Strasser, continues to relentlessly pursue the journey toward excellence in education, reflected in his frequent encouragement(s) to better serving the intellectual needs of SPACESHIP BSB'S students through teaching, research and service commitments on the part of his faculty.

Since the Commonwealth College depends upon local knowledge and initiative from its regional sites, it made sense for business and related faculty representatives to come together to meet this curriculum challenge. Representatives from all the Commonwealth regions were invited to spend a week at Main Campus to attend multiple sessions on how one might teach better with technology. One such effort focused on the effective use of multi-media in the classroom setting. This visionary work program was named "Vitamins for Eagles." Subsequent programs are now referred to as "Project Empowerment". Upon occasion, educational consultants were brought in to provide further insights toward appropriate curriculum planning.

As a side note, all regional sites which opted to have a BSB Program are not yet up and running. Delayed launchings of BSB programs at some of the regional launching pads are understandably a function of the specific situations at each campus. Additionally, external acknowledgements and agreements with state government also give rise to varying launch times.

EFFECTIVE AND VISIBLE LEADERSHIP

In any organization, whether in the profit or non-profit arena, the CEO, president or chief administrator needs to provide the strategic leadership necessary to move their institution to a viable future. This includes not only validating the vision of the organization but also the culture which individuals can embrace and grow within. Penn State University is no exception. The President of Penn State, Graham Spanier is an individual who both invigorates and has committed all the power of his office and his personal energy into enhancing the educational viability of his institution.

As early as March 1995, shortly after he was hired, and well before his official starting date (September 1, 1995), Dr. Graham Spanier, met with the trustees on the presidential search committee to discuss issues that needed to be addressed. At or near the top of the list was the CES. It was obvious to them that they had a champion who would move Penn State University to a future that met the challenges of the new century.

SPACESHIP BSB also seems to exemplify Quinn's (1996) contention that an organization can be changed from the bottom up. SPACESHIP BSB exhibits such grass roots activities. Essentially, it is not at all unusual on any given day to open up one's email and discover email messages from colleagues around the Commonwealth who are seeking advice, relating future meetings, sharing classroom successes, requesting information. Additionally there are at least three annual major BSB meetings where everyone is given the opportunity to submit an item of concern on the agenda. The summer meeting is particularly intensive. During this time (at least two to three days in duration), individual course work sessions are initiated. In this give-and-take environment, the order of the day is sharing; the goal is curriculum refinement. In a sense, this bubble up phenomenon is exactly what Eccles (1994) hopes will happen in order to successfully implement change. "Like an oil field, it is a matter of accessing it to raise the yield and the rate of extraction." (Eccles, 1994, p. 188.) On SPACESHIP BSB, communication is the order of the day and is not only upward and downward; it is also lateral. In this environment, communication abounds.

PREPARE FOR LANDING

SPACESHIP BSB is now docking at its Hazleton site. Prepare to disembark...

On Hazleton's baccalaureate degree manifest are about a half a dozen students. They will officially graduate on May 12, 2000. They will have successfully managed academic navigation through both general education and business/technology courses. . It is hoped that they are appropriately prepared to meet the demands in the world of business. It is hoped that they will be successful in their professional endeavors.

Of course, only the passage of time will determine SPACESHIP BSB'S Program integrity. Furthermore, only time will ultimately determine starship status for SPACESHIP BSB. Nevertheless, one goal already has been achieved and that is the address of geographically bound students around the galaxy of Penn State University through the establishment of various launch sites for SPACESHIP BSB. So far, so good ...

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BETTER PREPARING DISCUSSION OF A CASE THROUGH THE USE OF TOOLS ON THE INTERNET AS A MEANS OF ENHANCING AN IN-CLASS MANAGEMENT EXPERIENCE: THE MARIBELLE LTD CASE

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MONTRÉAL, QUÉBEC, CANADA

Abstract

This paper presents the personal experience that led me to develop tools on the Internet in order to improve student preparation of the Maribelle Ltd. case, a complex corporate restructuring case.

INTRODUCTION

In June 1997, I returned to the École des Hautes Études Commerciales (HEC) in Montréal after a twelve years outside the university in various positions of administrative and political responsibility. The conjunction of my tastes, affinities and teaching needs directed me towards the teaching of core management courses in the MBA program.

While I conducted a review of recent, relevant literature for my management courses, a significant amount of my concerns focused on the pedagogical dimension. Although I was convinced that my experiences were relevant for orienting students with regard to learning activities that were useful for fulfilling a management position, I had some apprehensions with regard to my re-adaptation and my ability to translate what I retained of my experiences into adequate pedagogical practices. I therefore decided to sit in on some of the courses taught by my colleagues and to take the spring session "Case Teaching Workshop"[1] at the Ivey School of Business and the intensive week at the School of University Pedagogy at the University of Sherbrooke.

This paper has provided me with the opportunity gather the ideas that inspired my course preparation and my in-class behaviour so that I could share them at the WACRA conference with colleagues having the same interest in developing interactive teaching. The first part of the paper presents the elements of my notion of the management profession which have inspired my pedagogical approach and which have led me to create a situation in which students experience a case study as a "management experience." The second part deals with the pedagogical challenge involved in improving case preparation. Lastly, the third part discusses the application of Internet use to the Maribelle Ltd. case.

A VIEW OF THE PROFESSION TO BE SHARED

Generally speaking, students who enrol in the MBA program have a specialized undergraduate degree and professional experience relevant to this particular orientation. They have little management experience in the sense of assuming coordination and personnel supervision, but they all want to become managers. They know that they will have to learn new theories and techniques, but they also need to confirm that these theories and techniques will provide them with a better understanding of the world of management and enable them to act in the most appropriate manner in concrete situations. It is by being confronted with concrete management situations that they identify the knowledge and skills they need. I also noted that each of the cases could become an opportunity for testing their desire and will to participate in managing and directing an organization. The elements I present below strike me as avenues to be illuminated so that students can become involved in a personal management experience. Following pathways obliges managers to call as much upon their emotional as their intellectual resources.

Exercising the management profession entails the obligation of carrying a whole series of judgements about situations and people. In this respect, it always calls for a personal commitment; it often calls upon our intimate resources and necessarily puts our limitations in relief. At times, this commitment is not entirely voluntary, inasmuch as, in many situations, doing nothing is a decision with serious consequences. Management thus involves an obligation to act, which, though stimulating, is not always comfortable.

Management decisions are always reductive and imperfect relative to analysis. They are at times improvised to deal with the unforeseen and ambiguous in complex situations. Managing involves sometimes difficult decisions; it requires will and, most important of all, it takes its meaning in the value attributed to the results of the actions one is conducting. It also frequently occurs that at their level of responsibility, managers have little influence on certain decisions, and their margin of manoeuvre occurs more in the way in which decisions are applied.

Managerial action occurs in an organizational context made up of many relationships, the understanding of which can be considerably improved through the use of management concepts and techniques. Indeed, experience draws out the extent to which managers' capacity for action is directly influenced by the quality of the relationships they develop with their immediate superior, their colleagues, and their subordinates. Organizations are sites of power in which participation in success leaves little room for naiveté; but managers who succeed in attracting and keeping the best are also those who succeed in creating and maintaining relationships based on trust. Indeed, the popularity of mentoring in management circles draws out the importance organizations accord to relationships that stimulate growth and provide learning opportunities.

The final element is concerned with the fact that one's judgements and decisions are often re-evaluated in light of the real results of one's actions, which are often far removed from what was anticipated, and also very often in light of a better understanding of people and situations. This reality contains organizational and personal dimensions, which we have to sort out for ourselves. Reflecting upon one's actions, taking the time to "re-organize one's thinking," is at the heart of a personal learning trajectory through experience. We can no doubt say that meaning is the motor of mangers' actions, and that their personal learning is the fuel.

THE PEDAGOGICAL CHALLENGE

Within the context of professional education, there is no doubt that the increasingly easy access to knowledge is transforming professors' responsibility and their concerns with regard to their students. Less focused on the transmission of knowledge, their responsibility is much more one of accompanying students in their learning of the profession and of creating conditions which invite them to sufficiently steep themselves in authentic management situations in order to undergo a significant personal experience[2]. Translating this view of teaching management into adequate pedagogical practices is an ongoing and demanding challenge. It corresponds to what C.R. Christensen[3] called the joy "of exploring simultaneously familiar and always unknown territory" whenever teachers assume the role of multiplier of occasions for stimulating, orienting and supporting student involvement in the management situations raised by each case.

Upon my return to the HEC, I began by attempting to familiarise myself with this challenge by taking courses by two colleagues, Guy Archambault and Taïeb Hafsi, whom many of you know and who are true virtuosos in the art of teaching through the case method. I systematically observed and noted their way of preparing and stimulating discussion of each case. With them, I came to appreciate their openness to the unexpected, their patience whenever they had to wait for the group to become involved, and, above all, the unconditional welcome and contribution of each. I also observed notable differences associated with very different personalities, and understand better how rewarding it is for students when their relationship with their professor is an authentic encounter.

However, in order for this magic to occur, students must become involved; and for this to occur, they must be well prepared. Sound individual preparation is the foundation of learning with cases, and it is the fundamental prerequisite for subsequent small- and large-group learning[4]. But as you know, preparing a complex case on your own is hard work. Sometimes, a large part of the case remains unwritten but is relevant to the analysis and solution of the case. Another part of the case would provide an overwhelming amount of information, and your inexperience with the issue can generate confusion and even frustration.

Maribelle Ltd. is exactly this kind of case study. Obliged to redesign the upper-management structure of the company, students have to deal with 88 management tasks assigned to 14 senior managers reporting directly to the president. This is a complex case, and I was not satisfied with the discussion we had in class. My main concern was that the students did not really take as their own both the situation and the role they had to play. They were just going through the intellectual motions of applying some knowledge to the situation without either personnel involvement or taking into account the real people involved in the situation.

Since I teach different management courses, I found that this situation is not that unusual in the field of business design, which is full of concepts, theories and technical knowledge with which most students are not familiar. So the easy way for the students is to use the model without adaptations that would be adequate in a specific situation. In doing so, students do not learn how to become a manager because they are not "acting" in the situation. My main concern was "how to achieve better student involvement" in the situation.

To understand why I elected to develop Internet tools to reply to this question, it is important to be aware of the effervescent technological context that prevailed at the HEC in 1997. Portable computers had become obligatory for MBA students, and it was possible for all of them to be connected in class. Among the HEC professors, both experimentation and apprehensions were widespread. I quickly had the opportunity to experiment with several aspects of using information and communication technologies for pedagogical purposes. I was able to use a complex strategic management simulation available on the Internet (Netstrat) as a tool for sensitizing new MBA students to strategic management, to conduct some of the course administration by intranet (outline, instructions, supplementary readings, etc.), to design or transpose some of the teaching material using computerized supports, and to participate in a distance learning experiment.

This context largely explains why I was able develop tools on the Internet to satisfy my pedagogical concerns even though I was a neophyte. The development of tools for preparing the Maribelle Ltd. case constituted, therefore, a learning opportunity for me.

MARIBELLE LTD

This company has developed from a small- to a medium-size company over the last 10 years, and it is still growing. The management tasks of the 14 senior management positions are assigned taking into account not only the abilities of individual people, but also their preferences and availability when the need for making a decision arises. Some of the task assignments even seem arbitrary. At present, the company's growth is putting more and more pressure on the coordination process, and there is growing concern among the managers.

The first task for the students is to review these task assignments and propose assignments that would foster the development of highly competent managers and ease the coordination process. The second task is to evaluate the need to eliminate and/or rename the senior management positions. The third task is to evaluate the need for a change from a functional structure to a divisional structure. The last task, but not the least, is "How would you implement these changes?".

Let us look at the first task they have to perform. They have to decide which management task they want to move from one manager to another (see appendix 1). I think that the simple difficulty of adequately presenting several combinatory possibilities or several structural proposals limited students' ability to involve themselves more deeply in the situation. For example, if you were to reassign 20 tasks and did so by hand, your worksheet would quickly become illegible. And what if you changed your mind? In this event, some students do it on their computer; but then they need the electronic version of the case, and unless they are given very detailed instructions, the presentation formats are all different. It takes time, and at the MBA level time is of the essence. In fact, as teachers we know that we have to compete to get good preparation time from students.

I noted that, in general, students reassigned a limited number of tasks for which they had prepared an argument, but when there were other students who had reassigned the same tasks to other managers, the level of discussion was not very high. Indeed, they had not envisioned several possibilities, and the logic behind their choices was often unclear.

Having a Web site that allows students to manipulate easily the redistribution of tasks according to the different criteria they decide to use has shown itself to be a good incentive prompting more adequate individual preparation. In so doing, it enhances the process of subsequent group learning.

The tool itself is quite simple[5]. The students go to the case's Web site, which contains the organizational chart and the list of the 14 senior managers' responsibilities, each with their own task. For each task, they simply have to click on the arrow to obtain a drop-down list of the 14 responsibilities. They can easily make all the moves they want, and they can also discard what they have done and make new decisions. They are thus prompted to reflect upon each of the tasks and to experiment with different assignment hypothesis and verify whether the obtained results permit easier coordination and a more adequate development of competencies. Whenever they come up with what strikes them as a satisfactory proposal, they can save it or print it and bring it to class.

The Web site also allows students to accomplish their second and third tasks. They can eliminate or rename a senior management position and can propose a division with different lines and staff responsibilities, etc. *By the end, it really does become their own proposal*. They can also print it out and bring it to class.

Do they have better proposals? Generally speaking, their proposals are much clearer, and students are able to establish more systematic links between the choices they make and the pursued objectives, which enables a much more productive group discussion. But this is not the only relevant issue. What might be more important is the fact that each student has developed his or her own proposal, which means not only intellectual involvement, but emotional involvement as well. As such, each student has genuinely begun his or her own learning process, one that other students and the teacher will allow him or her to pursue. Without this solid basis, there is little that colleagues and the teacher can do.

All the preparatory work the students do and the quality of their contribution in class assume their importance during the discussion of the last question, namely, "How would you implement the proposed changes?". In the Maribelle case, the president is also the company founder. Up to the present, he has been quite comfortable with a centralized management scheme and close coordination of people. Moreover, the company's size and its low degree of diversification (two sectors) argue, rather, in favour of a rationalization of the functional structure, unless an opportunity for additional diversification made the divisional structure more adequate. This case has become a classic for permitting students to familiarize themselves with the content of functions and the main criteria influencing company structuring decisions.

Whenever there is only minimally adequate student preparation, it is difficult for discussions to give rise to different plausible alternatives in terms of the company's medium-term strategy. And it is even more difficult to draw out the complexity introduced by the need for the president to review his own role and those of other people, who no doubt have each made significant contributions at different times during the company's growth.

On the other hand, when students are well prepared, the quality of the various contributions much more clearly underlines the diversity of possible choices. In addition, the personal involvement of students in defending "their" proposal constitutes a very real metaphor of the emotional involvement of each of the company's executives in the situation. It thus becomes obvious that the solution is not "only" rational. In particular, it must take into account the president's ability to change his own role and the opinions of people that the company tends to keep.

When, through their preparation and the quality of their contribution, students succeed in creating this kind of situation, the case then approaches a genuine management situation. As such, the desire to manage entails that each student also desire to acquire the tools needed for plunging into reality. It is precisely on this desire that one must rely for fostering the learning of the skills of the profession when each student perceives his or her task in relation to the management situation. They can and must then assume the responsibility for seeking to construct knowledge and master the skills which will enable them to act appropriately in light of its many constitutive facets. The professor's role is to accompany them.

CONCLUSION

As you can see, this contribution amounts to a simple but ingenious use of information technologies for pedagogical ends. It constitutes a genuine pedagogical innovation to the extent that it significantly improves students' relationship to their colleagues and the teacher and changes their involvement in the learning process. In closing, I would like to mention that these uses were developed with the help of Patrick Hardy, a Master's student in information technology, at a very low cost. They are without technical pretension, but they correspond to an approach that respects the pedagogical aims of the case method.

If this account incites you to develop your own tools by drawing on the presented approach and techniques, together we can attain one of the objectives of interactive teaching.

APPENDIX 1

Division – Public Relations

1. Surveys – public opinion about the company
2. Surveys – employee opinion
3. Advertising – job offers
4. Internal communication

Division – Training, Organization and Methods

5. Analysis – training needs
6. Content of various training activities
7. Choice of instructors
8. Training – sales personnel
9. Training – office personnel
10. Training – factory personnel
11. Analysis – factory organization and work methods
12. Studies – work organization – office and factory
13. Recommendations – changes to the organizational structure
14. Review – job description

Controller

15. Accounting procedures and methods
16. The company's general accounting
17. Preparation – the company's global budget
18. Budget controls
19. Analysis of variances – anticipated costs and performance/results
20. Analysis – office work organization and methods

President's Assistant

21. Employee log
22. Relations with members of the industry.

Division – Food Services

23. Cafeteria management
24. Vending machine management

Vice-president – Marketing

25. Market analysis
26. New product research
27. Research – new containers and packaging
28. Surveys – consumer tastes
29. Evaluation – sales potential of new products
30. Choice – Advertising agency and negotiation of mandates
31. Decision – advertising messages
32. Decision – budget for various media advertising
33. Decision – promotional material in clients' establishments
34. Decision – new formats for products
35. Decision – introduction of new products
36. Decision – product prices for special sales

Division – Personnel

37. Hiring – office personnel
38. Hiring – sales personnel
39. Hiring – factory personnel
40. Hiring – first-level executives
41. Instruments and processes – hiring and promotion
42. Fringe benefits: pension, various types of insurance
43. Promotion of employees
44. Firing of employees
45. Control over absenteeism
46. Donations – charitable organizations

Vice-president – Research and Development

47. Laboratories – new product development
48. Laboratories – definition of quality standards for existing products
49. Quality standards for products in development
50. Development – special production equipment
51. Analysis – impacts of new technologies on employees

Vice-president – Production

52. Management – production operations
53. Control over product quality

Vice-president – Purchasing

54. Purchasing – raw materials
55. Purchasing – office equipment
56. Purchasing – factory equipment
57. Control – receiving raw materials and supplies
58. Storage – raw materials and finished products
59. Inventory control – raw materials and finished products
60. Product distribution – national market
61. Shipping and transportation – export products

Vice-President – Finance

62. Financial needs – short and more long term
63. Negotiations – bank loans
64. Management – liquid assets
65. Payroll
66. Relations – financial institutions
67. Credit decisions – client accounts
68. Discounts to accord to clients
69. Salary scales – executive personnel
70. Coordination – employee profit-sharing plan
71. Communications with shareholders
72. Computer service – programming and data processing
73. Purchasing,computer-related equipment

Division – Technical Services

74. Maintenance and repairs – production equipment
75. Decision – technological changes
76. Building maintenance
77. Maintenance of work spaces
78. Analysis – returning defective products

Vice-president – Sales and Exports

79. Solicitation – national accounts
80. Relations with agencies in importing countries
81. Client services
82. Training – clients and product distributors
83. Analysis – sales organization and methods
84. Approaches to induce clients to pay their accounts more rapidly

Vice-president – Labour Relations

85. Negotiation of collective agreements
86. Administration of collective agreements
87. Settling of grievances submitted by employees
88. Respecting laws pertaining to health and safety in the work place

ENDNOTES

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SEEWELL CLINIC
ACCOUNTING FOR INTANGIBLE ASSETS IN PARTNERSHIPS

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Abstract

Seewell Clinic is a realistic case involving two ophthalmologists who decide to form a general partnership. One partner is an experienced professional, while the other is a young graduate specializing in laser eye surgery. The scenario describes each partner's initial proposal and the agreement they finally settle on. As suggested in the teaching notes, this case may be used in an accounting theory course to illustrate how to account for the substance of business proposals in financial statements including solving problems of recognizing intangible assets, which is a realistic reflection of the work performed by public accountants.

KEYWORDS: Accounting theory, intangible assets, know-how, general partnership, partnership agreement, business proposals.

SCENARIO

It is June 1999. Guy Joly is staring at an opportunity of a lifetime: starting his ophthalmology career in his very own clinic, which would be called Seewell, with Lyne Viau as his partner. The project has been in the planning stages since mid-January, and the two partners are still hard at work on bringing it to fruition. Guy Joly is a young ophthalmology graduate. Born in Quebec City, he attended school in Montreal, where he also completed his residency. He has recently returned to his native city to launch his career. His father, Bruno, is a retired ophthalmologist.

Lyne Viau, also from Quebec City, is a noted ophthalmologist. In her teenage years she was one of Bruno Joly's patients. In 1985 she became a partner in a Montreal clinic, and in 1995 she began working as a guest lecturer at the university. In the winter of 1995 she discovered, much to her surprise, that one of her students was Guy Joly, the son of the ophthalmologist she used to consult in her youth. She very quickly noted Guy's keen intelligence.

In his capacity as a member of the *Fédération des médecins résidents du Québec*, Guy joins a committee of the *Collège des médecins du Québec* in 1997. Lyne happens to be sitting on the very same committee. The two ophthalmologists become better acquainted, and their mutual appreciation eventually leads them to discuss forming a business partnership.

Exhibit 1 is a transcript of a conversation that occurs between Lyne and Guy as they are making their way out of a meeting of the *Collège des médecins* in January 1999. Their business venture is beginning to take shape: as they talk about financing, the future partners also discuss the contributions each would make to a business partnership. It is decided that Guy will take the necessary steps to get the information they need.

Exhibit 2 contains the first letter between the partners, written some time after their conversation in January. In the letter, Guy explains the steps he has taken with respect to financing. He sets out an initial proposal regarding his contribution to the clinic's initial assets and revenues. Lyne's response and counter-proposal appear in Exhibits 3 and 4. The counter-proposal highlights Lyne's very different perception of the partners' contributions to the initial assets and their allocation of the profits and losses.

Looking at their respective proposals the two partners realize they have to come to an agreement about the fundamental principles governing the operations of the clinic. They become aware that they are engaged in a long negotiation process. Lyne and Guy negotiate in good faith, knowing that a partnership is the most profitable solution. Some aspects of the agreement they eventually reach are discussed in Exhibit 5.

EXHIBIT 1

CONVERSATION HELD AFTER A MEETING OF THE *COLLÈGE DES MÉDECINS DU QUÉBEC* ON JANUARY 17, 1999

Guy: *Hi, Lyne. Well, that was another interesting meeting. Say, are you still teaching in Montreal as well as practicing in your clinic?*

Lyne: *Actually, I've got a career move in the works. Pretty soon I'll be leaving Montreal. One of my former colleagues, who's now practicing in Quebec City, is retiring in a few months, and he's agreed to sell me his practice. We're in the final stages of the negotiations, and if everything goes as planned, I'll be practicing in Quebec City before the year is out.*

Guy: *And what about your clinic in Montreal?*

Lyne: *I've been gradually cutting back on my activities there since I started teaching at McGill University four years ago. I plan to stay affiliated with my colleagues, but my involvement with the business will only be sporadic. I won't have a direct hand in running the business but I'll still be getting an investment income. I'd like to sell part of my interest to get the capital I need to buy the practice in Quebec City.*

I'm really thrilled about opening a new clinic in Quebec City because my whole family lives there. I've been waiting a long time for the chance to go back home.

Guy: *It's great to hear that you're going back to Quebec City. This would be the ideal time for us to start our partnership and get going on all our ideas.*

Lyne: *It's true... I'm not crazy about practicing alone when I get there because it's really great working in a reputable Montreal clinic with Quebec's leading ophthalmologist. But I also realize that the experience you gained at school studying laser surgery would bring our clinic to the cutting edge in our field.*

Guy: *And I'd have the advantage of starting a new clinic with an established clientele. But laser operations require a lot of financing. I think the laser equipment we need would cost in the neighbourhood of three quarters of a million U.S. dollars.*

Lyne: *We're definitely talking about a major investment here. But a lot of banks are interested in financing health professionals. I'm sure that my experience running a clinic and the fact that I'm taking over a practice is reassuring to any banker. On the other hand, we would each have to invest in the clinic, by contributing either money or equipment. I could contribute some office and ophthalmic equipment that I own free and clear, which cost me about $100,000, in addition to the practice. I'll be paying $135,000 for that.*

Guy: *I can also contribute instruments and the equipment I bought during my hospital residency. Before we go on with this discussion, I think we should find out how to secure the financing we need for our partnership.*

Lyne: *We need to mull this over. Would you like to start making inquiries?*

Guy: *I'd love to. I'll contact you as soon as I have some useful information. Bye!*

Lyne: *Thanks. See you soon.*

EXHIBIT 2
GUY'S INITIAL PROPOSAL, FEBRUARY 1999

Hello Lyne,

As we discussed on January 17, I have taken the following steps with respect to our project. According to the information I received, we would need to invest $217,500 each to start up the clinic. This investment could be in the form of cash or assets. We also need to find long-term financing to buy the laser equipment, which costs about U.S. $ 685,000, or CDN $1,030,000. This is a sizeable investment, but my research confirmed what you said about the bankers.

I had a joint meeting with the small business loans officer at the Commercial Bank and an agent of the Federal Business Development Bank. Both institutions would agree to finance our clinic when the time comes. The fact you'll be buying a practice carries considerable weight even though our clinic doesn't exist yet. It seems we could get the loans if the following conditions are satisfied: our partnership finances the equipment up to $130,000, we guarantee the laser equipment as collateral for the loans from each institution and our personal residences are given as collateral.

Under the above conditions the bankers would lend the partnership $900,000 over a five-year period at their prime rate plus 2%. In addition to the basic loans of $900,000, we would borrow $54,000 for credit search expenses (3% of the total loans, payable to each institution). The loans totalling $954,000 are to be paid back by total monthly installments of $20,000. The first instalment on each loan would be due one month after the loan comes through.

As you'll note from my initial calculations, we'll need to invest about $435,000 in our partnership. Your investment would be in the form of equipment and one intangible asset, while I would have to invest $181,250 cash in addition to my equipment. I have already started inquiring about securing the required funds. There are some programs that help recent graduates finance a new clinic.

Initial Assets of the Clinic and Partners' Required Contributions

Initial Assets (prior to any long-term loans) :		
Cash required to partially finance the laser equipment		*$ 130 000*
Working capital (based on an estimate of monthly expenses)		*20 000*
Office and medical equipment		*150 000*
Practice		*135 000*
Investment by partners		*$ 435 000*
Lyne's contributions:		
Lyne's interest in the partnership: $435,000 x 50%		*$ 217 500*
Equipment		*$ 100 000*
Practice		*135 000*
Receivable from Guy		*(17 500)*
Lyne's contributions		*$ 217 500*
Guy's contributions:		
Guy's interest in the partnership: $435,000 x 50%		*$ 217 500*
Medical equipment		*$ 31 250*
Office equipment		*5 000*
Contribution in the form of equipment		*36 250*
Cash contribution required ($217,500 - $36,250)		
Payable to Lyne	*$ 17 500*	
Payable to the partnership	*163 750*	*181 250*
Guy's contributions		*$ 217 500*

Looking forward to talking to you soon.
Guy

EXHIBIT 3
LYNE'S RESPONSE TO GUY'S PROPOSAL

Lyne reads Guy's letter as soon as it comes in. The extensive nature of his research confirms her future partner's commitment to the new venture.

Her first impulse is to think that he is being too ambitious in his request for 50% ownership. Although Lyne is open to making joint management decisions with Guy, she notes that he hasn't given enough consideration to the fact that she is more experienced and better known in professional circles. Second, she notes that Guy has not assigned any value to her professional knowledge, her experience in ophthalmology, her know-how (skills), her contacts, her experience managing a clinic, and so on. This expertise is nonetheless instrumental in the success of the new clinic. Third, she realizes that Guy has omitted two important factors. For one, he did not consider the cost of leasehold improvements. In addition he forgot to consider the cash they need to pay the first installment on the partnership's long-term loans. Lastly, she remembers that during their first conversation she had given him only a ball park figure for her equipment. She must now provide a more accurate valuation. She had asked Guy how he had assessed the worth of his own equipment. His reply was that he had merely used the price he paid when he bought it. Since the equipment is used, she decides to adjust their assessments. Furthermore, she believes they'll have to buy additional equipment worth $30,250. With these observations in mind, Lyne prepares a counter-proposal and forwards it to Guy.

EXHIBIT 4
LYNE'S COUNTER-PROPOSAL, FEBRUARY 1999

Hello Guy,

I was glad to hear of your continued interest in our future partnership. I have read your proposal and would like to make changes to it. The following is my revised version.

Value of Lyne's contribution with respect to equipment:	
Adjusted value of ophtalmic equipment (initial cost of $ 85 000, useful life of 10 years, remaining life of 6 years)	*$ 51 000*
Adjusted value of office equipment (initial cost of $ 14 500, useful life of 10 years, remaining life of 4 years)	*5 800*
Lyne's total contribution with respect to equipment	*$ 56 800*

Guy's contribution with respect to equipment :	
Adjusted value of ophtalmic equipment (initial cost of $ 31 250, useful life of 10 years, remaining life of 8 years)	*$ 25 000*
Adjusted value of office equipment (initial cost of $ 5 000, useful life of 10 years, remaining life of 9 years)	*4 500*
Guy's total contribution with respect to equipment	*$ 29 500*

Initial Assets of the Clinic and Partners' Required Investment		
Initial assets (prior to all long-term loans) :		
Working capital		*$ 20 000*
Cash required to cover the first monthly installment on long-term loans		*20 000*
Office equipment (including $ 4 500 of new acquisitions)		*14 800*
Ophtalmic equipment (including $ 25 750 of new acquisitions)		*101 750*
Laser equipment	*$ 1 030 000*	
External financing	*(900 000)*	
Amount required to finance laser equipment		*130 000*
Leasehold improvements		*45 000*
Practice		*135 000*

Lyne's expertise (breakdown follows)	*30 000*
Total investment required of both parties	*$ 496 550*

Breakdown of the value of the expertise	
Value of the expertise directly related to starting up the clinic :	
50 hours of work X $100 (hourly fee of an outside consultant)	*$ 5 000*
Value of the contact that led to the purchase of the practice	*25 000*
Total value of expertise	*$ 30 000*

I think that $30,000 is a conservative figure for the value of my expertise. I have taken into account only the contributions I make beyond those of the "average" ophthalmologist. It takes a long time to get management software for a clinic up and running (government and private billing, managing appointments, monthly activities, etc.). I have only proposed 50 hours of work. Similarly, the $100 fee for a qualified specialist in the field is also a very conservative figure.I have not factored in the value of the advice or support I would give you (when you ask for it, of course).

Each partner's respective cash investment

	Lyne	*Guy*	*Total*
Partnership interest (%)	*75 %*	*25 %*	*100 %*
Investment required	*$ 372 412*	*$ 124 138*	*$ 496 550*
Contribution in kind			
Office equipment	*(5 800)*	*(4 500)*	*(10 300)*
Ophtalmic equipment	*(51 000)*	*(25 000)*	*(76 000)*
Practice	*(135 000)*		*(135 000)*
Expertise	*(30 000)*		*(30 000)*
Required cash investment	*$ 150 612*	*$ 94 638*	*$ 245 250*

Best regards,
Lyne

EXHIBIT 5
EXCERPTS FROM THE PARTNERSHIP AGREEMENT, MAY 1999

Term of the Partnership:

The partners analyzed financial forecasts in the event they practice either alone or together. They quickly realized that a partnership would benefit Guy in the short term, while Lyne would be benefitted in the long term. Agreeing to a 10-year partnership, which is roughly the time Lyne has left in her career, made it easier for them to concur on profit and loss allocation.

Profit and loss allocation agreement:

As they worked out their profit and loss allocation agreement, each partner thought it appropriate to use as a starting point the percentage figure they had reached after comparing the results of working alone with those individual results added together. This meant 46% for Lyne and 54% for Guy.

If Lyne were to work alone, she would experience an increase in profits over the first two years and a relatively stable revenue for the remaining eight years. If Guy were to practice alone, he would make modest gains for the first five years, given the impossibility of finding the high financing he would need to buy his laser equipment prior to the first five years of operations. For the next five years, profits would be very high as they would include the impact of his very lucrative laser operations.

The following are highlights of the financial forecasts the two partners agreed on:

	Forecasted Earnings (5 years)		
	Lyne	Guy	Total
Individual practice	$ 748 500	$ 446 000	$ 1 194 500
	63 %	37 %	100 %
Joint practice			$ 2 676 000
	Forecasted Earnings (10 years)		
	Lyne	Guy	Total
Individual practice	$ 1 271 500	$ 1 479 500	$ 2 751 000
	46 %	54 %	100 %
Joint practice			$ 4 647 500

The partners decided to slightly adjust the 46-54% profit and loss allocation agreement, in light of a number of points they discussed during their negotiations. For example, they agreed to increase Lyne's 46% share because she will have to assume joint and several liability for Guy's laser surgeries, as prescribed in Quebec Civil code. These procedures are considered to be more risky than Lyne's activities.

The partners finally agree to allocate profits and losses as follows--48% for Lyne and 52% for Guy.

Contribution to Initial Assets:

Despite their very different financial positions, the partners agreed on an initial contribution of tangible assets in the same proportion they agreed on for profit and loss allocation, i.e., 48% from Lyne and 52% from Guy. Each partner will finance these initial investments personally.

The agreement is accounted for in the following manner with respect to the partnership's initial tangible assets:

	Lyne Viau (48 %)	Guy Joly (52 %)	Partnership (100 %)
Working capital required to finance:			
initial operating expenses			$ 20 000
first instalment on long-term loans			20 000
Office equipment (Note 1)			14 800
Medical equipment (Note 1)			101 750
Laser equipment			1 030 000
Leasehold improvements			45 000
Total initial tangible assets			1 231 550
External financing			(900 000)
Total value of initial tangible assets	$ 159 144	$ 172 406	331 550
Contributions in kind to tangible assets			
Office equipment (Note 1)	(5 800)	(4 500)	(10 300)
Medical equipment (Note 1)	(51 000)	(25 000)	(76 000)
Cash contribution required	$ 102 344	$ 142 906	$ 245 250

Note 1: Equipment investment

	Office equipment	Medical equipment	Laser equipment
Lyne's contribution in kind	$ 5 800	$ 51 000	
Guy's contribution in kind	4 500	25 000	
Total contributions in kind	10 300	76 000	
Additional acquisitions financed by the partners	4 500	25 750	$ 130 000
Additional acquisitions financed by creditors			900 000
	$ 14 800	$ 101 750	$ 1 030 000

As concerns the initial intangible assets, the partners will make their respective contributions in the same proportion they worked out in their profit and loss allocation agreement, i.e., 48% and 52%. Lyne's contributions to the initial intangible assets constitute the practice she is purchasing and her experience working as an ophthalmologist and managing a clinic. Guy's contribution is his know-how in the area of laser operations.

In fact, Lyne recognizes the major impact laser surgeries will have on the clinic's profits, while Guy realizes that the opportunity for immediate financing of his specialized equipment is due to his partnership with Lyne, who has a practice and extensive business experience. Lyne also recognizes that Güy's contribution in the form of his knowledge of laser operations, in relation to the 48%-52% split, is the equivalent of her contribution of the practice and her expertise.

Valuation of Each Partner's Interest:

The partnership contract provides for a list of circumstances under which the partnership may buy out one of the partners. It also sets out the conditions for admitting a new partner. For the purposes of applying the buy-out clauses set out in the contract, the value of each partner's interest represented by the balance of his or her capital account, adjusted, as may be required, to take into account any change in value of the clinic's assets, regardless of whether or not such elements are recognized in the balance sheet.

TEACHING NOTES

OBJECTIVES

One traditionnal role of accountants which is of utmost importance is to adequately account for the substance of transactions in financial statements. The theme on which we concentrate here involves accounting for the substance of business proposals in those financial statements. The case involving Seewell Clinic is intended to help students apply and assimilate financial accounting knowledge as they work on a specific case involving two ophthalmologists who decide to form a general partnership. The particular business proposals in this case are the following: the initial proposal submitted by one of the partners, the other partner's counter-proposal, and the final partnership agreement.

We believe this case has considerable teaching potential. However, in the teaching notes, we concentrate on the theme identified in the preceding paragraph. Other possible uses of the case study are listed in a subsequent section of this paper. We intentionally have chosen not to prepare a list of questions to be answered by students. Instead, as it is required in practice, they will have to extract from all the available information what is relevant for the preparation of the financial statements.

BACKGROUND REQUIRED

This case study requires that student have knowledge related to financial statement concepts, the recognition and measurement of intangible assets, the usefulness of the information provided in financial statements, the economic consequences of accounting policy choices and the legal issues surrounding general partnerships. This case is therefore appropriate for an undergraduate accounting theory course or intermediate financial accounting course.

ASSIGNMENTS

While building condensed pro forma opening balance sheets based on the substance of business proposals, students will have to decide whether certain intangibles have the basic characteristics of an asset and can be recognized in accordance with financial accounting concepts. Students will also note that their choices result in economic consequences. Since the partnership agreement is more detailed than each partner's individual proposal, there will be more discussion with respect to the topic of recognizing and measuring the intangibles. Therefore, we will focus mainly on the data in the final partnership agreement, with only a summary look at applying the substance of Guy and Lyne's initial proposals to an opening balance sheet. The time frame that is meant when we say "opening balance sheet" is the period prior to the start-up of the clinic but after the partnership agreement has been signed, the loans received, and the needed operating assets purchased.

An interesting way of using this material is to conduct a class comparison of opening balance sheets prepared either individually or in groups, taking into account financial statement concepts and user needs. Class discussion should revolve around these two criteria and lead students to judge how appropriately the opening balance sheets reflect the substance of each proposal. Another suggested activity is to split the tasks among teams or individual students. Each team or individual is asked to analyze how to account for a particular intangible item (financing charges, Lyne's new practice, her experience, or Guy's know-how as will be discussed later) in the opening balance sheets according to each of the three business proposals.

SOLUTION SUGGESTIONS

In addition to the tangible assets the partners are contributing to their business, they are also pooling some intangible assets. Lyne is putting a practice at the clinic's disposal, in addition to her experience in ophthalmology and clinic management. Guy is contributing his know-how in the area of laser eye surgery.

Based on their financial forecasts, the partners acknowledge the impact of laser eye surgery on their operating results. They agree to consider Guy's know-how as important as Lyne's contribution, i.e., her practice and her experience in ophthalmology and clinic management.

With respect to their initial investment, the partners agree on using the same ratio they arrived at for profit and loss allocation. As to the tangible assets, they decide that a contribution from each according to the same ratio again is an equitable solution. With respect to the intangible assets, they concur that their respective investments are represented by Lyne's practice and experience, and Guy's know-how. Guy's ability to contribute his know-how is subject to the clinic's ability to secure financing for the laser equipment. This financing will be very expensive.

The question before the students is how to account for the substance of the partnership agreement in Seewell Clinic's opening balance sheet. We will focus on three accounting items in particular: financing charges, the practice, and expertise.

Financing Charges

Although laser eye surgery is a very lucrative practice, the necessary equipment is very expensive, costing upwards of one million dollars Canadian. Two financial institutions are ready to finance the project over a five-year period, up to a maximum of $900,000, at their prime rate plus 2%. In addition to interest charges, the clinic must pay each institution credit investigation charges costing 3% of the total loans, for a total of $54,000. The fact that these charges are financed by the creditors explains why the $54,000 total does not appear in the final agreement as a contribution required of each partner.

There are two possible accounting treatments for these financing charges: charge them directly to income, or use capitalization and amortization. Charging them directly to income is a conservative decision that would avoid overstating the assets; however, it would also result in significantly decreasing net income for the first operating period, which will most likely displease the partners. The accountant might therefore want to consider the relevance of capitalizing the $54,000 charges. The purpose of capitalization and amortization is usually to match these charges with related benefits.

Long-term debt financing charges are usually capitalized and amortized [McMahon et al., 1993; Ménard et al., 1991]. In essence, these charges are added to interest expenses. For Seewell Clinic, the cost of the debt is the lending institutions' prime rate plus 2%, to which are added financing charges of $54,000. The Canadian Accounting Standards Board[1] (AcSB) seems to indicate that financing charges are essentially an interest expense. In its recommendations on presenting the results of operations in the income statement, the AcSB explains that interest expense includes the amortization of debt discount or premium and issue expenses [Canadian Institute of Chartered Accountants (CICA), 1999]. Since the debt is to be paid back over five years, and these charges are essentially added to the interest expense, it would be perfectly logical to capitalize the charges and amortize them over a five-year period.

In fact, the AcSB implicitly recognizes the theoretical validity of deferral and amortization when it recommends that major items among the deferred charges should be shown separately, particularly long-term debt issue expenses [CICA, 1999]. The use of deferred charges and credits is in accordance with the accrual basis of accounting. The AcSB states that accrual accounting encompasses deferrals that are made when a cash receipt or payment occurs prior to the criteria for recognition of revenue or expense being satisfied [CICA, 1999]. The $54,000 financing charges are paid as soon as the loans are received, but these charges pertain to the entire five-year period over which the loans are to be repaid. These charges should therefore appear in the balance sheet as deferred charges.

It may also be relevant to question whether the deferred financing charges have the essential characteristics of an asset. The possibility of deriving any future benefits from deferring the financing charges is debatable. One plausible argument is that the financing allows Seewell Clinic to offer laser eye surgery, a very lucrative practice with undeniable future benefits. If the clinic's ability to carry out these surgeries were called into question, for whatever reason, the loans must nonetheless be repaid, but the future benefits would no longer exist. It would then be appropriate to write off the deferred charges, which, essentially, have no future benefit.

Identifying the future benefits arising out of the particular financing method used (i.e., the loans) instead of the future benefits arising out of the financed asset, i.e., the laser eye surgery equipment, is another argument. In fact, the future benefits from using the specialized equipment are already taken into account in the decision to capitalize the cost of the equipment. If an additional sum of $54,000 were to be capitalized, additional benefits would have to arise from the fact that the equipment was financed by the banks, instead of by the partners, for example. Obviously, such additional benefits are exceedingly difficult to identify.

If no conclusion can be reached as to the existence of future benefits, then it is useless to question whether the other two conditions for qualifying as an asset are satisfied. If we conclude that future benefits exist, it can be argued that the event that gave rise to the advantage has already occurred: the signing of the loan agreements guarantees funds for the clinic, and therefore the possibility of generating these benefits. Lastly, the clinic will be using the money to buy the specialized equipment; it will use the equipment as it sees fit, giving it a certain control over its access to future benefits.

The AcSB offers a solution to the dilemma of future benefits. It suggests that elements that do not fully qualify as assets may be recorded as assets nevertheless [CICA, 1999]. It follows that financing charges may be recorded as assets based on the fact that they do not yet satisfy the criteria for being recognized as charges in the income statement. Though the existence of future benefits is debatable, capitalization would be acceptable.

From the viewpoint of the users, particularly the Commercial Bank and the Business Development Bank of Canada, the capitalization of the financing charges reflects the economic reality of the transaction in which the institutions themselves have taken part. Table 1 (which will be discussed later) shows that Seewell Clinic's entire initial investment, including the $54,000 financing charges, was financed by creditors up to $954,000, and by the partners for the remainder. The subsequent amortization of the deferred financing charges during the loan period gives a truer picture of the interest expense. Furthermore, if the users of the financial statements consider that such assets are "too soft", the fact that they are clearly disclosed as intangibles allows the users to make any adjustments they deem necessary.

Although the partners expect their clinic to turn a profit quickly, the clinic may need financing at any given time to purchase a building, for example, or to modernize its equipment. Lenders will then consider the debt ratio. This ratio shows what portion of the clinic's total assets was obtained via external financing. Recording deferred financing charges as assets will then directly decrease Seewell Clinic's debt ratio.

The partners will also see their respective capital accounts decrease once the financing charges are charged to income. The decreases will follow the same ratio as that agreed upon by the partners for profit and loss allocation. The decision to capitalize and the choice of amortization period will thereby have an impact on the balance of the partners' capital accounts. This accounting choice will have an economic impact each time the carrying value of each partner's interest in the clinic is taken into account, in particular, when the need for additional investment in the clinic is being considered, in accordance with the clauses of the partnership agreement, or when one of the partner's financial situation is being assessed by one of his creditors.

In conclusion, the capitalization of financing charges appears to be the treatment of choice according to current accounting standards. This method gives a more comprehensive picture of Seewell Clinic's financial situation. It also has a positive effect on the balance of the capital accounts.

The Practice and Expertise

Under the terms of the agreement, the partners are to follow the same ratio in their contributions to the clinic's initial intangible assets as they did for profit and loss allocation, i.e., 48% for Lyne Viau, and 52% for Guy Joly.

Lyne's contributions to the clinic's initial intangible assets are her practice, and her experience in ophthalmology and clinic management. Guy's contribution is his know-how in the area of laser eye surgery. Experience and know-how are hereinafter designated as expertise.

From an accounting standpoint, the partner's contributions in intangible assets give rise to three areas of discussion. Do these contributions fulfill the basic criteria for classification as assets? What type of assets are they? Do the contributions meet the recognition criteria for assets?

The Question of Classifying the Intangibles (Practice and Expertise) as Assets

Let us first consider that Lyne has personally acquired a practice that she will be putting at the disposal of the general partnership. Having this element in hand is a bona fide advantage, since an established clientele will help Seewell Clinic generate additional cash flow. In fact, the two partners are guaranteed a certain number of clients as soon as they open their doors. Guy's know-how also promises future benefits because it will also generate cash inflows. The partners' financial forecasts clearly show the laser eye surgeries' contribution in that regard. Laser eye surgery is very lucrative, and the mastering of this technique is a boon to the clinic's revenues. Lyne's experience in ophthalmology and clinic management are also a source of future benefits. Combined with her practice, both contributions are key factors in the creditors' decision to extend the necessary credit towards the purchase of the specialized equipment. The lenders are reassured by the fact that Lyne has already successfully operated a clinic. These intangible elements are also an incentive to Guy to enter into a partnership. He believes that success is likely to come with having an experienced partner. Although the future benefits can be identified to a degree, one cannot help but recognize that without the foregoing combination of intangibles, Seewell Clinic would probably not see the light of day.

Next, it can be stated that the entity is in a position to control the access to these benefits. Lyne has undertaken to put the practice she personally acquired and her own experience at the disposal of the clinic. Guy undertakes to practice laser eye surgery for Seewell Clinic. The partners' commitment to the clinic represents a certain control over its access to the benefits. As a precaution, the clinic will take out insurance to compensate for net income that may be lost if one of the partners became incapable of carrying out his activities.

Lastly, the events giving rise to the future benefits have already occurred. From Seewell Clinic's standpoint, the purchase of the practice and the signing of the partnership agreement give rise to the benefits associated with the practice. The events giving rise to the benefits from the contributions of experience and know-how are Lyne's experience, Guy's training, and the signing of the partnership agreement. The benefits associated with these intangible elements have been taken into account throughout the entire negotiation process, which led to the signing of the agreement. This agreement represents the future unrelated partners' formal acknowledgment of the existence of these assets.

It may therefore be concluded that the practice, Lyne's experience, and Guy's know-how may be classified as assets because they have the essential characteristics required.

Type of Assets

The second step involves looking at the nature of the assets, given that their classification may impact how they are accounted for. Although it can be said that the practice is an identifiable intangible asset, there is no obvious classification for expertise. Lyne disbursed $135,000 in order to do business with the clients of the retired ophthalmologist. She therefore became the acquirer of an identifiable asset: the right to do business with those clients. It is harder to determine how to classify expertise. The two partners agreed to take into account each other's contributions in the form of intangible assets. They even agreed, without quantifying it, that Lyne's two types of contribution (48% of the total) were equivalent to Guy's contribution (52% of the total). Knowing the worth of the practice, and that this is a sure value, we need look no further to determine that the minimum total value of the contribution of intangible assets is $281,250 ($135,000 divided by 0.48). As we do this, we see that Guy's contribution of $146,250 represents the excess of the value of his know-how over the value of Lyne's experience. It should be noted that these computations do not allow us to determine the total value of the intangible assets; they only allow us to estimate the value of the margin of difference between Guy's know-how and Lyne's experience.

Expertise fits the definition of goodwill which is a type of intangible asset arising from an enterprise's good client relations, the *quality of its human resources*, the fact of having a good location and reputation, and numerous *other factors allowing the enterprise to make above-average profits* [Ménard, 1994, emphasis added].

According to GAAP, goodwill is recognized only in cases of business acquisitions or push-down accounting. In fact, goodwill is excluded from the scope of Section 3060 Recommendations on Capital Assets [CICA, 1999]. In addition, Section 1580 (Business Combinations) covers only the goodwill that results from the difference between the amount paid for a business and the fair value of that enterprise's assets and liabilities [CICA, 1999].

It is conceivable that the purpose behind the *CICA Handbook* Recommendations on goodwill is to prevent the recognition of internally generated goodwill. According to Kam [1990], it would be contrary to the historical cost principle to recognize internally generated goodwill. When an entity is initially formed, operations have not yet begun. If negotiations that have a financial impact (such as determining the value of equity interests) bring to light the existence of a non-identifiable asset from the very start, this asset may be recognized without compromising the principle of historical cost. The margin of difference in know-how can then be considered intangible property, which could later be written down if there is any doubt as to its net recoverable amount [CICA, 1999]. Furthermore, conservatism would dictate opting for a short amortization period.

In accordance with GAAP, any goodwill arising from the subsequent operations of Seewell Clinic would not be recognized unless this entity is acquired by another, or if an acquirer controls the enterprise and over 90% of its equity interests after an acquisition [CICA, 1999].

The practice, for its part, is an asset that can be considered as either goodwill or intangible property. It could be argued that Lyne was acquiring one sole asset from the retiring ophthalmologist, i.e., goodwill. Had she acquired the totality of the seller's net assets, she probably would have paid $135,000 more than the fair value of the net identifiable asset she acquired, and this excess amount would have been considered as goodwill. In addition, a practice fits the definition of intangible property, i.e., a capital asset that lacks physical substance [CICA, 1999]. It is nevertheless identifiable and used in the course of the clinic's operations. Furthermore, the AcSB classifies a subscriber list--which is similar to a practice--as an example of intangible property.

Recognizing the Assets

Now that it has been established that the intangible assets will most probably generate future benefits, the third question before us is whether these assets can be measured. Unless they can, they may not be recognized as assets [CICA, 1999].

There is an objective basis of measurement for the practice--Lyne's payment of $135,000. Guy accepts this value when he recognizes that part of his partner's initial contribution is the practice, purchased for $135,000. As for know-how and experience, only Guy's marginal know-how has been measured thus far. The previous figure of $146,250 was implicitly accepted upon in the partnership agreement. This value, nonetheless, may not be objectively verified. How is it possible to assess Guy's know-how and Lyne's experience and arrive at this net result? The value of Guy's marginal know-how is in fact the clinic's only initial asset that cannot be verified externally. The impossibility of ascertaining this measurement is the main reason to exclude Guy's marginal know-how from the opening balance sheet.

Recognizing Guy's marginal know-how is thus a matter of professional judgment. The relevance of such recognition hinges on the needs of the users of the financial statements. The next section presents a variety of solutions.

Possible Solutions to the Question of Marginal Know-How

Usefulness is a predominant matter in the establishment of accounting concepts. The accounting information in Seewell Clinic's balance sheet is meant primarily to help the Commercial Bank and the Business Development Bank of Canada assess how the partners will be managing the loans for their equipment and whether the clinic will be able to generate enough future cash flows to repay the loans. The bankers will also be looking at the carrying value of the loan collateral.

Seewell Clinic's lessor may have an interest in the clinic's revenues if the lease contains a contingent rental clause based on revenues. The question of recognizing marginal know-how is therefore of little importance to him. It is equally a non-issue for the insurer, whose primary concern is knowing the clinic's operating results so he can determine the appropriate business insurance premium. If the marginal know-how is to be recorded in Seewell Clinic's opening balance sheet, it should be amortized as a separate item in the income statement in order to allow the insurer to make any necessary adjustments.

Including Marginal Know-how in the Opening Balance Sheet

Know-how was one important factor in securing the loans for the purchase of the laser eye surgery equipment. The fact that marginal know-how is recorded on the clinic's balance sheet lets the bankers know that, in the opinion of the partners, the marginal know-how has the same value as the practice. This information may prove useful as they ponder the possibility of future benefits, especially in view of the minimal amount capitalized--the value of the excess of Guy's know-how over Lyne's experience in ophthalmology and clinic management.

In fact, the balances of the respective capital accounts as they appear in Table 1 show the bankers each partner's contribution to the general partnership, regardless of the nature of the contribution. Lyne's capital account includes a $159 144 contribution in tangible assets and a $ 135 000 contribution in an intangible asset. The corresponding figures for Guy's contributions are $ 172 406 and $ 146 250.

TABLE 1
SEEWELL CLINIC, GENERAL PARTNERSHIP
PRO FORMA BALANCE SHEET BASED ON THE PARTNERSHIP AGREEMENT
MARGINAL KNOW-HOW RECOGNIZED

Assets		**Liabilities**	
Cash	$ 40 000	Bank loans	$ 954 000
Office and medical furniture and equipment	116 550		
Laser equipment	1 030 000	**Owners' Equity**	
Leasehold improvements	45 000		
Practice	135 000	Viau, capital	294 144
Marginal know-how	146 250	Joly, capital	318 656
Deferred costs	54 000		612 800
Total assets	$1 566 800	Total liabilities and owners' equity	$ 1 566 800

From this information the bankers can see, without consulting the actual contract, the partners' tacit agreement with respect to asset allocation. The information also illustrates each partner's commitment to the affairs of the clinic, which will contribute to future benefits. The bankers can expect that, in accordance with GAAP, the value of the marginal know-how asset would be written down should any doubt be cast on its net recoverable amount.

In fact, seeing the amortized value of the marginal know-how through the years may actually prove reassuring for the bankers. An accelerated depreciation or write-off would signal a downward revision of the benefits expected from the equipment for which the loans were granted. With disclosure of the nature of the various assets, the bankers are able to distinguish the assets that may be used as collateral from those that may not.

As explained in the section on financing charges, recognizing the marginal know-how in the opening balance sheet may affect the value assigned to the capital accounts and to Seewell Clinic's financial ratios.

The balance sheet in Table 1 offers a true picture of the substance of the agreement with respect to each partner's contribution to the clinic's initial tangible and intangible assets. *Each* partner's initial investment forms the clinic's initial asset base, in which *both* partners have a respective interest of 48% and 52%. Guy has a 52% interest in the practice initially purchased by Lyne and in all the other assets she has contributed. Lyne has a 48% interest in Guy's marginal know-how and in all the other assets he has contributed. The capital accounts, therefore, include the value of the practice and of the marginal know-how. The choice of recognizing the marginal know-how in the opening balance sheet increases the capital account balances. This accounting choice may have a financial impact on a partner, particularly if his interest in Seewell Clinic is being assessed by a personal creditor or used to assess the additional investments that may be required under the partnership agreement.

Capitalizing the marginal know-how decreases the debt ratio as it does not affect the debt at the numerator and but it increases total assets at the denominator. Once the clinic needs additional funding, a minimal debt ratio may cause the bankers to decrease the number of restrictive contractual clauses or reduce financing charges.

In conclusion, the condensed pro forma balance sheet in Table 1 fairly reflects the substance of the partnership agreement under which Lyne and Guy respectively contribute 48% and 52% of the general partnership's tangible and intangible assets. This solution results in capital accounts and a debt ratio that reflect accurately the financial reality, given the sum of tangible and intangible assets invested in Seewell Clinic.

Excluding Marginal Know-how from the Opening Balance Sheet

Given the difficulty of ascertaining the value of Guy's marginal know-how, and the conservatism principle that prevails in accounting, the marginal know-how may also be excluded from the balance sheet. There is, in fact, some degree of uncertainty associated with the future of laser eye surgery. For example, should patients experience a negative outcome after such a procedure, the treatment's popularity would fall significantly. Guy is just beginning his career and has not yet earned his stripes as an effective surgeon. All these considerations may justify excluding his marginal know-how from the balance sheet. This approach still does not change the fact that the substance of the agreement needs to be represented. It was agreed that Guy's marginal know-how represents a 52% contribution to the general partnership's initial intangible assets. Two possibilities are then before us: either adjust the initial value of the capital accounts or modify the way profits and losses are shared by allocating the value of his marginal know-how ($146,250) to Guy prior to distributing the balance of profits and losses according to the agreed-upon percentages. Both possibilities are explored next.

If we go with the option of not recognizing the marginal know-how as an asset, it may still be considered through an adjustment to the partners' capital accounts. Lyne's account would be reduced by $70,200 ($146,250 X 48%) and Guy's reduced by $ 76 050 (146 250 $ x 52 %). This operation is presented in Table 2.

The owners' equity section in the balance sheet, shown in Table 2, reflects the substance of the agreement whereby Lyne recognizes Guy's contribution in the form of marginal know-how. She is ready to recognize it immediately by reducing the balance of her own capital account. Table 2 shows that each partner's interest is still 48%-52%. Though the marginal know-how is not recognized, the adjustment to the capital accounts shows that it is nevertheless an implicit consideration.

Although this accounting treatment allocates the owners' equity between Lyne and Guy properly, their capital accounts do not reflect their total respective contributions. If we compare this accounting treatment with the one recognizing the marginal know-how, there will be no long-term impact on the value assigned to the capital accounts. However, the capital accounts will differ in the medium term, which corresponds to the amortization period of the marginal know-how.

TABLE 2
SEEWELL CLINIC, GENERAL PARTNERSHIP
PRO FORMA BALANCE SHEET BASED ON THE PARTNERSHIP AGREEMENT MARGINAL KNOW-HOW UNRECOGNIZED; ADJUSTMENT OF CAPITAL ACCOUNTS

Assets		Liabilities	
Cash	$ 40 000	Bank loans	$ 954 000
Office and medical furniture and equipment	116 550		
Laser equipment	1 030 000	**Owners' Equity**	
Leasehold improvements	45 000		
Practice	135 000	Viau, capital	223 944
Deferred costs	54 000	Joly, capital	242 606
			466 550
Total assets	$1 420 550	Total liabilities and owners' equity	$ 1 420 550

This accounting choice may have economic consequences for either partner in situations where the carrying value of their interest in Seewell Clinic is being considered. The fact of not recognizing the marginal know-how increases the debt ratio, which jumps from 61% (Table 1) to 67% (Table 2), although it is still substantially the same partnership agreement.

The pro forma balance sheet in Table 2 is all in all a more conservative measure than the one in Table 1. This document may report the partners' contribution to the clinic's net tangible and intangible assets as being 48% and 52%, but it does not show all the assets financed by the owners' equity.

If the marginal know-how is excluded from the opening balance sheet, another way to reflect the substance of the agreement is to keep the partner's capital accounts intact and allocate to Guy an additional $146,250 from Seewell Clinic's profits, then distribute the balance according to the agreed percentages. Table 3 illustrates this.

TABLE 3
SEEWELL CLINIC, GENERAL PARTNERSHIP
PRO FORMA BALANCE SHEET, BASED ON THE PARTNERSHIP AGREEMENT MARGINAL KNOW-HOW UNRECOGNIZED; ADJUSTMENT OF PROFIT AND LOSS ALLOCATION

Assets		Liabilities	
Cash	$ 40 000	Bank loans	$ 954 000
Office and medical furniture and equipment	116 550		
Laser equipment	1 030 000	**Owners' Equity**	
Leasehold improvements	45 000		
Practice	135 000	Viau, capital	294 144
Deferred costs	54 000	Joly, capital	172 406
			466 550
Total assets	$1 420 550	Total liabilities and owners' equity	$ 1 420 550

Given that the main thrust of the agreement is that the partners are to invest in the initial assets according to the same ratio they agreed upon for profit/loss allocation, and that some assets are being excluded from the opening balance sheet, it is necessary to adjust the way profits and losses are shared. Ideally, the partnership agreement should be altered to provide for a way to allocate the $146,250 to Guy. Perhaps he could be allocated the first $146,250 generated by the clinic's activities; or else this amount may be allocated progressively each year, over the duration of the agreement, for instance.

The pro forma balance sheet in Table 3 shows a 63%-37% distribution of the owners' equity in the partners' capital accounts, evidently a departure from the previously established 48%-52% profit/loss and asset allocation agreement. While the profit/loss allocation may be altered to take this fact into account, the opening balance sheet improperly reflects the partners' actual agreement concerning their respective contributions to the initial net assets.

If it is decided to adjust the profit/loss sharing by allocating Guy $146,250 over a certain number of periods, he may end up losing out because of the time value of money. In view of the economic impact attached to the amount in each partner's capital account, reflecting Guy's complete initial contributions from the very start appears to be the method of choice.

Pro Forma Opening Balance Sheet Reflecting each Partner's Proposal

It has been suggested in the preceding section that the partners' full contributions to the clinic's tangible and intangible assets, including marginal know-how, be recognized in the opening balance sheet. The same discussion can take place regarding each partner's proposal. For example, Table 4 is based on Lyne Viau's Counter Proposal[2]. It shows assets totalling $1,450,550 being financed up to $954,000 by creditors, and the difference of $ 496,550 by the partners. It also reflects Lyne's initial thinking, as she wished for a 75% interest in the partnership. The Expertise item shows Lyne assessing her experience at $30,000. She did not take Guy's know-how into account.

TABLE 4
SEEWELL CLINIC, GENERAL PARTNERSHIP
PRO FORMA BALANCE SHEET BASED ON LYNE'S INITIAL PROPOSAL

Assets		Liabilities	
Cash	$ 40 000	Bank loans	$ 954 000
Office and medical furniture and equipment	116 550		
Laser equipment	1 030 000	**Owners' Equity**	
Leasehold improvements	45 000		
Practice	135 000	Viau, capital	372 412
Expertise	30 000	Joly, capital	124 138
Deferred costs	54 000		496 550
Total assets	$1 450 550	Total liabilities and owners' equity	1450550

The balance sheet also reflects Lyne's desire to take into account the wear and tear of each partner's assets, and she reduced the original cost accordingly. She also noted other elements her colleague omitted, particularly leasehold improvements and the need to acquire additional equipment.

The fact that the financing charges are being covered by creditors explains why the $54,000 does not appear in Lyne's counter-proposal as contributions required of the partners. These charges nonetheless appear in Table 4, as Lyne was aware of them at the time she prepared her proposal.

OTHER POSSIBLE USES FOR THIS CASE STUDY

Seewell Clinic can be used for other educational activities: for example, it can be used to examine the scope of accounting standards: is it necessary for Seewell Clinic to prepare general purpose financial statements, given its financial statements' users ? It can also be used to track the three various stages of the negociations between the partners. This can be done by having students compare the corresponding pro forma opening balance sheets. It can also be used to illustrate how to present an opening balance sheet in due form, including the notes to the financial statements. In order to do this, students will have to get supplemental information, on ophthalmology in particular, so they can make an enlightened choice of accounting policies for the amortization of various types of capital assets.

Alternatively, the focus might be on defining the different clauses for inclusion in the partnership agreement, based on the available information, and in addition to those already mentioned in the case. Students can also be asked to prepare financial forecasts and present them in accordance with accounting standards. They should then be required to substantiate the assumptions they used with respect to the context of this case study.

ENDNOTES

1. Seewell is operating in a Canadian setting. However, since International and American accounting standards involved are similar, it can be easily adapted in a non-Canadian setting.

2. A similar discussion can take place for the opening pro forma balance sheet based on Guy Joly's initial proposal.

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SISTER ANNETTE BELLAVANCE'S TWIN PASSIONS EDUCATION AND SCHOOL ADMINISTRATION

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Abstract

This case describes the turnaround that Sister Annette Bellavance, from the Congregation of the Sisters of Notre Dame, has been operating since she was appointed principal of College Regina Assumpta in 1971. To understand the turnaround and the restructuring, the authors describe briefly the history of the College since its opening in 1889 in the heart of Montreal. They also provide some background information about catholic private education and the growing presence of a modern bureaucracy in Quebec's life. In 1971, Sister Annette inherits an institution in dire financial shape. Will she be forced to close the College? To her astonishment she finds that parents are ready to fight to keep their College opened. Sister Annette will then lead the College to recovery and transform it in a vibrant institution. The authors describe the education she and her siblings received from their parents. A tightly knit-catholic family where education, learning, good behaviour, and management are the foundations of a meaningful life. The authors also describe the step by step restructuring of the College and the implementation of a strategy of financial self-sufficiency. To deal with the new educational environment, Sister Annette and her board will take some important decisions and create new services. Strategy is more than a concept for Sister Annette who volunteers some insight on what it takes to be a good manager; communication and power sharing are the ingredients for a well-run school. Listening to students and stimulating their imagination are the ingredients to be a good teacher. To conclude the case Sister Annette explains her vision for the next five years; in our new world of technologies, she believes a good project does not last more than five years that is why she is creating a new interactive centre.

INTRODUCTION

A member of the Congregation of Notre Dame, Sister Annette Bellavance has served as principal of Regina Assumpta College since 1971. She has managed to transform this teaching establishment "which had come to seem quaint and somewhat shabby" into a vibrant and sought-after school.

Education has always been a key concern of the Sisters of the Congregation of Notre Dame. Well before the canonical incorporation of the Congregation in 1676, Marguerite Bourgeoys and her teachers were criss-crossing New France to provide education to the children of the colonists.

The first part of the case is devoted to Regina Assumpta College and to the philosophy of teaching which has always inspired the Sisters of the Congregation of Notre Dame. Created in 1955, with the mission of offering a Christian education to young girls in Montreal's North End, the College developed in a constantly changing environment. Caught between social upheavals and school reforms, the College nevertheless emerged unscathed thanks to the women of vision at its helm.

The second part of the case is devoted to Sister Annette Bellavance. Daughter of a well-to-do family, her earliest childhood experiences were of a Christian family life. A solid educational grounding at the local "row" school[1] and later, as a boarder at a teacher's college, turned her towards teaching and the noviciate. After becoming a nun, she took up the duties of teaching and studies. Her teaching career lasted several years. However, school administration was what really attracted her.

As principal and head administrator of the College, Sister Annette would still need her teaching talents. When she took office in 1971, her mandate was clear: either straighten out the College's finances or close its doors. To her great surprise, parents were ready to do battle for their College. But how would she manage to stop the College from being a drain on the Congregation?

At the dawn of the new millennium, Sister Annette, still principal of the College, views the future of the institution with the greatest serenity. The College is in good financial shape; it is being run by a dynamic staff. And the advent of so many new educational technologies seems to offer limitless possibilities for innovation.

PART I: REGINA ASSUMPTA FROM ITS FOUNDATION UP TO 1971

The Regina Assumpta Boarding School (*Pensionnat* in French) located on Sauriol Street in Ahuntsic officially opened its doors to a group of 515 students on the 8th of September 1955. But, its founders, the Sisters of the Congregation of Notre Dame, had been running the Saint-Urbain Academy in downtown Montreal since 1889. There they had taught young girls from wealthy families, from primary up to the second year of academic studies. They had even taught a few boys in the lower classes. What prompted their departure from Saint-Urbain Street?

Over the years, the building housing the Saint-Urbain Academy had fallen into disrepair and no longer offered students a comfortable environment. There was such a lack of space that the sisters were often obliged to use the chapel as an examination room.

The Saint-Urbain neighbourhood itself was changing character. Recent urban flight had left the district's population less homogeneous, and the sisters were not happy with the area's new tone. Faced with this fact, the sisters decided it was perhaps time to move closer to their students rather than have them commute to a neighborhood, which no longer reflected the values of the Congregation.

Their neighbouring institution, Sainte-Jeanne-d'Arc Hospital, would speed up the move. In a period of full expansion, the Hospital wanted to acquire all of the Academy's land. Agreements were signed between the two administrations. The next step was the purchase of land to build a "new Saint Urban."

Mother Sainte-Marie-Paul, the Academy's Superior, would choose a plot of land in the Ahuntsic district where the sisters could put up "a new, more spacious and more modern building."[2] In her capacity as Superior, Mother Sainte-Marie-Paul watched over every single detail of the design and construction of the new building, which took fifteen months to complete.

After serving as Superior of the Boarding School from its opening on the 8th of September 1955, Mother Sainte-Marie-Paul stepped down from these functions in 1961, at the age of 75. During her six-year mandate, Mother Sainte-Marie-Paul could keep a calm, steady hand on the wheel, for, though numerous commissions were advocating in-depth reform of the school system, the strong upheavals had not yet begun.

Throughout her mandate, Mother Sainte-Marie-Paul had no trouble attracting young girls from Ahuntsic and from Villeray, somewhat further south. True, the prospectus describing the Boarding School was quite appealing:

> *Regina Assumpta has as its goal to educate both mind and heart and to nourish a taste for good manners. We are dedicated to the task of raising up young Christian girls whose solid convictions will be enlightened by a living faith...*[3]

The Boarding School was granted its first charter in 1959. As a legal entity distinct from the Congregation, the school would thenceforth be called Regina Assumpta College. There the sisters would dispense primary education as well as four years of a Letters-Sciences curriculum.

Described by her companions as a "remarkable woman endowed with intelligence and vision," Mother Sainte-Marie-Paul could quite plainly see how much such a large establishment had to offer. Even so, just a few years after its opening, she was forced to concede that the College lacked space. The number of students kept growing and parents kept demanding new programs.

According to the rules of canon law, Sister Sainte-Marguerite-du-Rosaire was appointed to serve as the College's second Superior, from 1961 to 1967.[4] Though she found the time and resources to renovate some classrooms, she would soon be obliged to give all her attention to the political, institutional, and social changes of the Quite Revolution.

From 1960 to 1966, Quebec underwent radical transformations. Institutions were completely modified, society was secularized, and religious practice declined. Moral values became more liberal. Religious communities, teaching communities in particular, would bear the brunt of these shifts, as the state took control not only of education but of health and social services as well.

The task, which fell to Sister Sainte-Marguerite-du-Rosaire during her mandate, was far from an easy one. Legislation ensuring maintenance of a private school sector would not be passed until several years later. The reigning mood was that of uncertainty.

Parallel to all this social upheaval, there arose another order of reflections, infinitely more relevant to religious communities. In October 1962, Pope Jean XXIII opened the Second Vatican Council, which would "change the face of Catholicism throughout the entire world... Vatican II proposed a radical renewal of the Church while also enhancing the role of the laity."[5]

Sister Sainte-Marguerite-du-Rosaire was a cultivated woman whose gift of intellectual curiosity drew her to issues in the outside world and led her to attend, with an open mind, numerous meetings on educational matters. Faithful to the College's teaching mission, Sister Sainte-Marguerite-du-Rosaire states that:

> *... a Christian liberal arts college must provide a good background in the humanities so as to prepare young people to make good use of their enthusiasm and to become selfless enough to view their future as a service rendered to society and the Church...*[5]

To ensure that the College was smoothly run, Sister Sainte-Marguerite-du-Rosaire surrounded herself with several assistants. Under her leadership, the College became a member of the *Fédération des collèges classiques* in October 1961. It was granted a new charter authorizing the creation of a Board of Directors. Finally, in September 1964, the Parents' Association was set up.

But throughout her mandate, Sister Sainte-Marguerite-du-Rosaire never strayed from her primary goal: providing students the education they required. Whether boarders or day students, the College's young charges needed "a well-rounded education, built not only on the assimilation of learning but also on the application of [disciplinary and pedagogical] rules."[6]

On the disciplinary level, the wearing of school uniforms and compliance with rules of good conduct were what mainly counted. The methods used to mould the students included a system of rewards and punishments. The rules applied in the area of studies were those of the University of Montreal's Faculty of Arts, to which the College was affiliated.

The teaching staff was mainly composed of nuns, though there were a few lay teachers. When the College first opened, its staff was solely female, but when classes reopened in 1958-1959, a priest had joined their ranks. In 1961, two other men were hired, one as a physical education instructor and the other as an English teacher.

Students also had access to such services as an infirmary and a library. There was a chaplain to respond to their spiritual needs. The College also offered private classes in piano and voice training. Drawing classes were available to students interested in graphic design, painting or charcoal drawing.

Well-known lecturers regularly visited the College. But what students of all ages seemed to prefer was the cinema-club, which showcased a broad variety of films. Theatre, diction, and folklore were offered as extracurricular activities and the performances they generated were the delight of parents.

The second of Sister Sainte-Marguerite-du-Rosaire's concerns was the financial health of the College. Even with substantial sources of income, the administrative personnel could not balance the College's accounts and, year after year, the Congregation "was spending large sums to pay off deficits."[7]

Upkeep and services were costly but the College's finances were most heavily taxed by the hiring of lay personnel. Lay teachers had to be paid at market rates, unlike the nuns "whose work was compensated by a modest sum paid to the community."[8]

By 1967, the winds of change were sweeping across the field of education in full force. CEGEPs [*Collège d'enseignement général et professionnel*] and comprehensive high schools would open their doors; classical studies, normal schools, nursing schools, and some economics schools would disappear. Teacher training would thenceforth be a part of the University of Quebec network.

The private sector, constantly under threat, enjoyed somewhat more stability after the passage of Bill 56 in 1968. The College was not sheltered from the winds of change; it had to adapt to the new structures while holding on to its autonomy.

Sister Sainte-Marguerite-du-Rosaire ended her mandate in 1967. During the four years from that date to 1971, three sisters succeeded each other at the head of the College. According to a long tradition, each Director was also Superior of the local community. These are two very demanding tasks and neither can be done on a part-time basis. So, what is to be done in such circumstances? Most often the local Superior would delegate her powers as College Principal, dividing them between a Director of Studies in charge of schedules, programs, and hiring and a Director of Students in charge of discipline, rules and regulations, and extracurricular activities. But the Principal and her assistants were often called upon to fill other functions in the Congregation's other establishments and so, during those four years, there was considerable turnover in supervisory staff. Creation of the Board of Directors in September 1970 would bring a bit more stability to the College's organizational structure.

During this transitional period, the College administration sought various strategies of adjustment, though sometimes this consisted in merely reacting to a given situation. Successive agreements were signed with neighbouring establishments, including the boys' college, Saint-Ignace the latter called for certain new accommodations, since co-education was not yet common practice. A new partner, Sophie-Barat College, also came on the scene at that time.

This pooling of material and human resources was not peculiar to these three establishments. Rather, it reflected the common desire to offer students "the best possible quality of education (diversity of options) at the lowest cost."[9] However, such exchanges are often short lived, because problems with commuting and time conflicts usually prove more troublesome than the advantages gained from the various joint programs.

Faced with the orientations of the Congregation,[10] the College administration tried a new tack, becoming an "associate institution" of the Catholic School Board of Montreal. With this new status, the College could take in students from a broader area, some from as far away as Saint-Michel. Several streams were offered to students general (for those with learning difficulties); scientific (for those who wanted to focus on mathematics and the sciences) or classical (for those concentrating on languages).

During those years of uncertainty (and despite modifications in compulsory and optional courses), the sisters' sole concern was providing the students assigned to their care with a solid education. Following the recommendations in the Parent Report, they inaugurated a number of auxiliary services:[11] an orientation service was set up in 1970 and, though still in its infancy, an audiovisual service was put in the hands of a qualified person. Audiovisual technique was one of the students' favourite extracurricular activities.

Even two years after the passage of Bill 56, its effects were still being felt in the educational environment and more specifically in private establishments. The College's association with the Catholic School Board came under attack. Several private institutions were sold to the public sector and the sisters wondered whether they too should sell their College.

The future of the College did not look promising; the sisters were all too aware that the Congregation "no longer had the numbers needed to maintain all of its houses."[12] Among the 41 teachers in the College, only 20 were nuns and they were all nearing fifty. Nor was the College's financial situation any better than it had been before. Deficits were a yearly occurrence; the Congregation did its best to pay them down with grants, but their financial resources were not inexhaustible. Should the sisters sell the College, close it or, under certain conditions, keep it going? The sisters would consult the parents for their advice.

PART II: ENTER SISTER ANNETTE BELLAVANCE

When consulted, the parents were in favour of the College's continued operation. They even wanted the College to regain its private status. Towards mid-January 1971, the Congregation's General Council thus decided to keep the College open. Its future would thenceforth depend on the Council of the Marguerite-Bourgeoys Province. What remained totally unresolved was the question of the College's directorship and its finances.

Sister Lucille Garneau, Provincial Superior, analysed the situation and proposed a number of ways to improve the College's profitability:

> *Granted that, aside from the recruitment of religious personnel, the difficulties felt reveal a financial deficit which is largely due to inadequate admissions; granted also that a wide range of options can serve a larger clientele and respond to a broader spectrum of needs, the members of the Provincial Council are of the opinion that the Institution should do its best to increase enrolment, in particular by facilitating the admission of new registrants.*[13]

In February 1971, Sister Annette Bellavance was appointed Principal. This appointment led to the creation of a Joint Committee grouping representatives of the Marguerite-Bourgeoys Province, the College administration, College personnel, and the Board of the Parents' Association. The Committee's mandate consisted in "studying the various ways of keeping the College open and of ensuring its development as a private secondary institution."[14]

Between April 1971 and January 1972, the Joint Committee met seven times. Over those nine months of work, it consulted parents as well as teachers. It studied numerous files, including that on finances and on boarding facilities. When asked about their level of satisfaction with the quality of teaching in the College, most parents stated that they were very satisfied; but they also wanted the College to "open its doors to the less talented as well as the very gifted.

The latter proposition is in perfect harmony with the sisters' desire to reconnect with the spirit of their founder. Parents also expressed the desire to become more involved in the administration of the College via the Board of Directors. Teachers whose response rate was lowest, wanted the College to keep its private status.

At the opening of the 1971-1972 academic year, the College's enrolment jumped from 589 to 867, marking a welcome improvement in the College's financial situation. In November 1971, a five-year plan was presented to the Congregation's authorities. In March 1972, the Joint Committee recommended that the College should retain its status as a corporation, while, on the other hand, proposing several changes in the College's internal organization: lay representatives to be added to the Board of Directors, the Studies Council, and the Educators Council.[15]

The question of institutional succession was raised. How would the authorities of the Congregation and the College deal with this matter? That was, in part, the challenge awaiting Sister Annette Bellavance.

THE BELLAVANCE FAMILY: A CLOSE-KNIT UNIT

The Bellavance family were residents of Sainte-Angèle-de-Monnoir, a small place south of Montreal where everybody knew everybody else. Mrs. Bellavance, who "wore the pants," took charge of raising the children while Mr. Bellavance, the debonair father, was kept busy running their farms, the general store, the garage, and the cannery.

Mrs. Bellavance would get up every morning at about 5 to prepare everything for breakfast. To protect the family's privacy, a maid was allowed in only for a few hours later in the day. Believing that it was essential to start the school day off with a hearty meal, Mrs. Bellavance used breakfast to set the tone for the day. Sister Annette recalls her experience of these breakfast sessions:

> *Breakfast would last for an hour. It was copious, for our mother made sure that we ate well. She wanted to send us off to school in a good mood. We would review our homework and recite our lessons; nobody got off the hook. As we headed off she never forgot to give us a piece of fruit for snack time.*[16]

A very vigilant mother, Mrs. Bellavance also taught in the local school. With what was equivalent to a ninth grade diploma, she qualified to teach in the "row" schools of the region.

In today's context, those rural schools would seem quite unusual. As it was difficult to maintain large school buildings in the sparsely populated countryside with its small villages, the rural school grouped children of different levels and ages in one room. In the 30s and 40s, elementary comprised nine levels of instruction: the youngest children (1st to 7th grades) were grouped together in one room, whereas the oldest (8th to 9th) were taught in another room. The division of tasks between rural teachers was also very flexible, as illustrated by the anecdote recounted by Sister Annette below:

> My mother decided that I would do grades 7, 8 and 9 at the same time. I had to register for two certificates with the inspector. In the 9th grade, there was accounting and I had never done any before. I did my accounting course in a week at the home of the schoolmistress, while, in exchange, my mother had children come to her to learn the present perfect tense in French.[16]

Mrs. Bellavance's philosophy of life at home as at school was based on the importance of schooling and upbringing. She told her children that schooling was "their heritage" and their studies got her full attention:

> In the house there were two dining rooms, a number of bedrooms and a kitchen. The more disciplined could study in the bedrooms; the others mother kept under her eye. Studies were closely supervised. The baby was there too, but he had to keep quiet. Mother gave him crayons to scribble with.[16]

In Mrs. Bellavance's mind education should be as much civic as religious, so that her children would "grow in beauty and wisdom to become useful citizens to the family, the Church, and society." Wherever they went, the children had to abide by a few simple rules such as respect for others and self-respect. Sister Annette has fond memories of family meals:

> When we would go back home for lunch, steaming pots of vegetables and fruit awaited us. We sat down at table and said grace. We also knew we shouldn't say bad things about our neighbours. What happened at home remained there and what happened at school stayed there. We were told not to repeat anything that was only hearsay.[16]

Aside from the grace said at noon and the evening prayer at 4 p.m., there was catechism to prepare for first communion. Once the three-week course was completed, there would be an examination by the parish priest who could mete out punishment for not knowing one's catechism well.

Busy with his work all day, Mr. Bellavance would join his wife and family for the evening meal. This was the occasion for everyone to discuss the events of the day. Sister Annette recounts that:

> Suppertime depended on my father. He would let my mother know when he planned to come home. Just before supper, we had a half-hour break. During supper, we joined in serious discussions with my father about his business affairs. We also talked about what we had done at school. We got in touch with each other's strong points; we were all made to feel valuable. I can say that I know my brothers and sisters inside out. We never brought up our weaknesses or faults in public. Our weaknesses were my mother's concern. Once a month, she would take each of us aside to see what should to be done.[16]

Mr. Bellavance was a successful businessman; he earned the money but let his wife handle it. So, it was up to Mrs. Bellavance to do the budgeting and to teach her children, from their most tender age, to do the same. Sister Annette learned to budget when she was only five years old:

> I learned about administration in our "Family Council." At 4 or 5, I didn't understand everything, but by 10 or 11, it was smooth sailing. I knew that you had to avoid going broke, that no economy could run without activity, and that you needed a surplus for reinvestment.[16]

Each year, in July, the Family Council met to plan the family budget and vacations. Each child also had to present his or her own budget, which might include small purchases of such things as school supplies or candy, though the latter did not always meet with complete approval.

In order to familiarize his children with management, Mr. Bellavance asked them to choose some work project connected with one of his many businesses. One summer, Sister Annette decided she would sell the strawberries:

> *I thought it would be easy. But I soon learned that I couldn't serve English-speaking clients because I didn't know the language. I went to my father and explained the*

> *situation. He decided to let me take care of selling strawberries to our French-speaking clientele. Management is a natural gift, but there are some guidelines and practices to be mastered.*[16]

Brought up with good common-sense values, the Bellavance children very quickly discovered how to set priorities. Sister Annette recounts the family's shopping habits:

> *My mother didn't waste her time shopping. She shopped by catalogue or sometimes from a travelling store. Trades people would come to the house and my mother would either choose a piece of clothing or the cloth to make it. That was the way it was with families at the time. Even today I still don't shop; I have a dressmaker who brings me a selection of styles.*[16]

Though a busy, devoted mother, Mrs. Bellavance nevertheless managed to set aside time for herself. Each year, she would go to Granby for a closed retreat. She knew that the children would take advantage of her absence to let their guard down. But back at home, she made no mention of her suspicions.

As the thirteen-year-old adolescent that she then was, Sister Annette was nearing the end of her elementary studies. She had to pass not one but two certificates: for 7th and 9th grades. The local inspector had never before handled such a request and it took a bit of prodding to persuade him to grant it. Sister Annette remembers her years in rural school as very formative: "There were 56 children ranging from 1st to 7th grade. It was a school of life. This is what I find missing in our schools of today."[16]

Elementary school over, another stage began. Like most of her brothers and sisters, Sister Annette would leave Sainte-Angèle-de-Monnoir to study at the teacher's college in Saint-Jean, which was run by the Sisters of the Congregation of Notre Dame. She became a boarder:

> *Out of the ten children, eight continued their studies. But all of us became administrators... You had to be a boarder and learn a musical instrument. I chose the piano. At 13, I was a lot younger than the other boarders who were 15 or 16.*[16]

She adds:

> *I had already tasted the joys of inwardness through the Christian education given by my parents and in my parish. A gift of inestimable value! I had a longing for the Absolute and I felt called to be an educator. I wanted to devote my life to the service of God through the education of youth. I considered it the mission I had to fulfil on earth. I also aspired to becoming an administrator so as to widen the scope of my role as an educator.*
>
> *At the time, in the 50s, the educational mission was mainly entrusted to religious communities which took on the tasks of school administration. I felt that things were ideally laid out for me: devoting my life to God in a community of teaching sisters where I could satisfy my need for the Absolute and, one day, serve youth in a leadership role. The ideal life, allowing me to pursue my twin passions!*[17]

In the meantime, Sister Annette found her life as a boarding student difficult. Teaching methods were non-existent. For example, she did chemistry and physics without doing a single experiment or touching a single instrument. There was no laboratory. The library was short on books and many of those available were on the index. Study periods were so tightly regimented that it made no sense. She comments:

> *There were, after all, some good teachers, like the one who loved poetry and appreciated the beauty of things. But on the whole our intelligence was compartmentalized and I found this very unhelpful, because I sometimes needed longer periods of extended study.*[16]

Sister Annette graduated from the Saint-Jean teacher's college with a teaching certificate and started her teaching career in Sainte-Angèle-de-Monnoir. But she very soon decided to enter the community of the Sisters of the Congregation of Notre Dame. She was 21 when she started the noviciate. As a young woman accustomed to her village where everybody knew everybody else, Montreal (where she knew no one) seemed such an impersonal, faceless city:

> *Montreal is a confusing, rootless metropolis. When the MNA comes to call, it's to make political hay. In Sainte-Angèle, it was different. When my mother was ill, the whole*

community helped out.[16]

For Sister Annette, teaching in public or private establishments has always gone hand in hand with continued studies. At the Montreal *Institut pédagogique*, she earned an advanced teaching certificate, then an A certificate and a bachelors degree in teaching at the University of Sherbrooke. She next attended Marguerite Bourgeoys College where she earned a B.A. After that, it was back to the University of Montreal for two teaching degrees, one in French and Sciences, the other in School Administration.

She topped off her studies at the University of Montreal with a masters in School Administration in 1970. Somewhat later, an Arts Canada grant gave her the opportunity to pursue doctoral studies in Europe. When she arrived there in 1971, she found students up in arms.

In psychology courses, she was confronted with teaching methods based on group dynamics and with students and professors addressing each other with the familiar form "tu" in French. She admits to having been more than a little resistant, for she felt that she was not obliged to volunteer personal information to people she didn't know. This was also the era when self-knowledge was caught up in the "I, me and mine" syndrome thus, very individualistic. She found this new learning experience unsettling, given her communal family upbringing where growth of "the family, school, and Church" was nurtured as a single body and given her choice to join a religious community where "one sacrificed one's own ideas for the common good."

SISTER ANNETTE BELLAVANCE'S TWIN PASSIONS: EDUCATION AND SCHOOL ADMINISTRATION

Strong currents of change were disrupting Quebec's educational system, and the secular trend in society at large often worked in favour of lay education. For their part, the Sisters of the Congregation of Notre Dame were still struggling to stem the drain the College was putting on their finances. Though the sisters teaching in the College received no salary as such, lay teachers were paid according to the current salary scales. What is more, the College's two possible sources of income □ the boarding facility and the cafeteria □ often showed deficits themselves. Consequently, when Sister Annette arrived at the College in 1971, she knew she had only a short time to show the Congregation that the College could grow and even make a surplus. She also knew her chances of success would be improved by drawing up a plan for recovery.

The five-year recovery plan she proposed included a number of closely interwoven aspects. The first step was to publicize the College and its philosophy of education. Having never had any training in advertisement, she realized that her task would not be an easy one. This did not stop her. As a member of a community with a long teaching tradition, she drew inspiration from her community's own roots, choosing a few simple objectives which were still valid in the year 2000.

All students are expected to achieve whatever excellence is within their reach:

- *Socially*, this means progressive socialization favouring the development of personal autonomy.
- *Intellectually*, this means developing methods of thought involving effort, discernment, and scientific rigour.
- *Physically*, this means the healthy and harmonious development of the body.
- *Emotionally*, this means personal development through coming to know oneself, one's needs, and one's values.
- *Culturally*, this means direct contact with the deep wellsprings of our culture.
- *Spiritually*, this means practising Christian life through tangible commitments.[18]

Sister Annette here reaffirms the notion of the private college while defining its mission. By proposing to parents a college that "strives to educate young Christian girls to have firm convictions enlightened by a living faith..." and have them become tomorrow's women leaders, Sister Annette was convinced she could attract more students.[3] She knew her figures and understood that she could balance the books with 800 students, and that 1,000 students would give her a slight surplus.

Sister Annette also made several financial decisions. She closed the boarding school (□*pensionnat*□), which too frequently showed a deficit and which, in 1971, seemed something of an anachronism, what with the well-developed public transit system and changes in lifestyle.

She also re-examined the cafeteria's mode of operation. Up to then, it had been customary for both students and sisters to have their meals at the cafeteria, but no one knew exactly the proportion of students to sisters, since no cost allocation had ever been done. She therefore decided to physically separate the College from the Congregation.

Under this new structure, the Congregation continued to own the College buildings but no longer allocated any money for their operation. Where, then, did Sister Annette hope to find that money? She explains:

> *In 1971, the idea of services was practically non-existent, so the concept had to be planted among the parents. The College had to espouse a philosophy of dedication to services and beauty. We had to show that we could have a large school and still have everything run smoothly, because parents and teachers alike felt that we would be creating an ungovernable monster if we increased the number of students per class and the number of classes per level.*[19]

So Sister Annette offered the parents individualized services. The College was no longer to be a huge establishment encapsulating five secondary levels, but would be transformed into five smaller schools, separate and independent from each other. By redefining the notion of space, Sister Annette created a new dynamic capable of generating a richer and more pleasant life within the College, since: "a beautiful school encourages students to seek higher. A beautiful school is like a monastery beside a lake. There are trees, the monk's cell is spare, but it displays a beautiful icon on the wall."[19] In this way, reading, music, and the library became Sister Annette's icons.

The cafeteria service was redesigned because "parents must be given the service they can afford." The more well off would buy the annual package. Others would buy the occasional meal à la carte, and the rest would bring their own food. In light of the initial results, it was decided to install microwave ovens in the cafeteria so that the students bringing their own meals could eat them hot.

New services were added to existing ones. The Student Orientation Services and Resource Person Services (including the psychologist) were combined into one entity, which became Orientation and Psychology Services. Its areas of intervention have evolved over the years, to provide students with orientation, academic and professional information, and career or psychological counselling. All these areas focus on the students' own self-awareness and their ability to make enlightened choices. Orientation and Psychology Services are available to students throughout the length of their schooling, and include a broad range of activities geared to the various levels. For example, high school students and their parents are invited to the information evening on the options for high school and the parents also attend the CEGEP evening.

Sister Annette describes the work of those early years:

> *Things had to be managed meticulously. The parents' team held its own, seconded by the milieu as a whole and by the staff. The money now stays within the College, but there has to be considerable transparency, since it's public money, and the parents' money. We can't make mistakes.*[19]

It took Sister Annette three years and tight financial management to implement the elements of her recovery plan and to prove that an institution, even a private one, could be run like a business enterprise.

Thanks to meticulous management, in 1983, Sister Annette was able to purchase a house on Durham Street, the Caillou Blanc ("The White Pebble"). A place conducive to reflection and retreat, where students and instructors in need of revitalization could meet; the Caillou Blanc is attached to Pastoral Services. Sister Annette explains the changes, which have occurred:

> *Since the purchase of the Caillou Blanc, spiritual life has evolved considerably and forms of spiritual expression have changed radically. For example, theatre was included during Jubilee celebrations. We also hosted a Spanish singer that the students found fantastic... I found him rather loud... Retreats aren't the same; we can no longer attract young people in the same way... We will be selling the Caillou Blanc, since it has achieved its mission. However, with the money from the sale, the administration will set up a corporation to make the Cultural and Sports Centre accessible to the severely*

> *disabled. When Ms. Thibault, the Lieutenant Governor, came to inaugurate the Centre, I already had this idea in mind. The Caillou Blanc will carry on its mission in a different guise.*[20]

Other services are more closely related to teaching. "Envol", a term derived from the contraction of the expression in French for voluntary enrichment ("*enrichissement volontaire*"), is an option offered to academically gifted and talented students. The enriched programs offer these students "challenges geared to their potential. The emphasis is on acquiring a method of thinking that involves effort and quality, scientific rigour and critical thinking, creative imagination and intellectual curiosity."[21]

Option Plus is addressed more to students who are talented in a specific academic area. Option Plus is much more focused and gives interested students "the possibility to pursue enrichment activities that provide variety, complexity, and depth" in the form of individual or collective studies, of independent study or research or again through work in the enrichment centre.[21]

The Arts and Sports (AS) Option is offered to students who apply themselves intensively to arts (ballet/music), athletics, and sports. These students receive special attention: help in planning their work; exemption from certain courses; and extra time to exercise their talents.[21]

The Multimedia Centre is a place of experimentation and creativity for students and teachers who wish to become familiar with the new information and communication technologies by producing television and multimedia programs or by learning about computer graphics applications.[22] For the 2000-2001 school year, the Option Cratic □ College Regina Assumpta Technologies in Information and Communication will be offered to those students with some knowledge of computers who are interested in these new technologies. Using their laptops, the students work on projects and scenarios that help integrate different subject matter and encourage co-operative work.[21]

Sister Annette is constantly seeking new things and continually improving the programs and services that the College offers its students. Formerly, the music program offered only piano, but then progressively added all the instruments of the orchestra, so that the College now has a symphony orchestra. Private courses in harpsichord, recorder, classical guitar, harp, piano, harmony, and classical orchestra instruments are offered to students who attend the College as well as those from other institutions. Besides learning to play a musical instrument, the students also take theory, harmony, solfège, and ear training. These courses are eligible for credits and can replace an extracurricular activity. The College also offers semi-private courses, after class, for certain instruments.[23]

The arts program has proven stimulating for the teachers as well as the students, while the sports program, which formerly offered handball only, has now been expanded to include many other sports.

In 1998, the Cultural and Sports Centre, whose motto is Health and Mind, opened its doors. Its swimming pool, gymnasium, and multi-purpose rooms offer students from the College as well as local residents the opportunity to enjoy physical and cultural well being. For the first time, from June 28 to August 20, 1999, the Edphy-Regina Assumpta Day Club offered a vacation camp to boys and girls aged 4 to 14. The basic club featured a multi-sports program adapted to the ages of the children as well as clubs specializing in English, Multimedia, Info/Net, Dance, and Karate. The College's Cultural and Sports Centre hosts the Day Club.[24]

Academic life also has its place. Personal and complementary services are offered as well.[25]

When Sister Annette is asked what she has done to transform the College, she mentions several things:

> *Having a background in administration, I did case studies. Is administration a science or an art or both at once? I believe that it's an art and a science. But when you're studying a case, there's input from your personality and your judgement... Administering varies from one morning to the next, since you have to work with groups of human beings who are very different from one another. The administrator has to inspire confidence and must not mix the professional and the private. As administrator of the College, I'm here to manage an establishment, to listen to what people have to tell me. I have to make our material, spiritual, and intellectual resources flourish. But this in no way alters my own attitudes.*[19]

She adds:

> *The director gets to run the locomotive and must keep it on track. Instilled with the basic*

> *philosophy and the mission of her institution, she must also have knowledge in administration. She must know where to go and get money in order to generate surpluses so that the students aren't penalized. No one's interests are served by bankruptcy or stagnation. The administrator must also show proof of practical judgement, otherwise good decisions are bypassed.*[16]

It is a rare day that Sister Annette doesn't have to draw on her own common sense. She tells the story of one young woman, a physical education teacher:

> *When she became pregnant, she could no longer teach gym. The obvious solution so that she could continue being paid was to have the CSST intervene. However, at that time, another staff member was leaving us, thereby creating a job opening. I felt we should offer this opening to our young gym teacher. Why use CSST money when a more beneficial solution could be found. The CSST money comes from our income tax. It should serve all the people in an honest way.*[16]

For Sister Annette, managing the College also means being there to serve the young people entrusted to her care, and she sees to it that teachers as well as administrative staff working for the General Secretariat adopt this philosophy too. As she says:

> *Teaching means conveying a culture... People always listen to something that's interesting... It's not up to the child to support the adult. Children must come first. We are there to welcome them, not to reject or judge them. We're there to listen at the opportune moment, since the child is tomorrow's adult, being shaped today... Young people are the pearls and adults are like diamonds that must be well cut if they are to be of any value.*[19]

She also encourages teachers to make their teaching more stimulating by striking out in new directions. She is convinced that if Latin were taught in a different way, the young students would show much more interest in it. As a manager, Sister Annette has a project she would dearly like to achieve:

> *I would like this to be a pilot school in terms of the teachers' remuneration and performance, such that there would be an increase in salary for innovative teachers. I would put the others below the poverty line. A company is a public good that must be managed properly. The money from the parents and from grants must be managed as if it were our own money.*[20]

As a member of the Sisters of the Congregation of Notre Dame, Sister Annette concedes that she finds it easy to manage the College as common property given her own experience of vows of poverty and obedience. This special situation makes it possible for her to "be detached from material goods in pursuit of a common undertaking, while keeping a tight hold on the purse strings." In preparing her budget each year, she draws up a detailed inventory of expenditures and requirements, and admits to being very strict with employees. As she says, "you must not add on for the sake of adding on" since 70% of the revenue is allocated to salaries. Once the budget is set, there can be no further unanticipated expenditures.

In the eyes of Sister Annette, the parents of her young students have an important role to play. Though their association with the College never lasts more than five years (the typical length of their children's academic studies), their multidisciplinary contribution can have a meaningful impact on the way things are run.

Whether they are serving on the Board of Directors or the Executive Council, Sister Annette is amazed at how parents can get to the root of problems and find solutions. She describes her relationship as administrator with the team around her:

> *As I see it, the people around me are very important because they teach me and complement my own views and attributes. Every member of the team is like a star that shines or a satellite that transmits information that I should listen to.*[19]

She adds:

> *Information is power. But you have to know how to convey all of it. The administrator must never hold back information. On the contrary, it must be offered in an objective way.*[19]

Thus, when Sister Annette has a meeting with her team, she sends the written documents each member needs a week beforehand. In so doing, she relinquishes this information into the hands of the group, so that it can act as it wishes in using it. The group may accept the documents, question them, or toss them in the wastebasket if it feels they aren't relevant. This working method provides sufficient knowledge to enable discussion on the various items on the agenda.

For Sister Annette, the administrator must be genuine and firm. An administrator must be calm and take the time to perceive things in order to build social peace and to change the administration from within, since "we don't revolutionize the world, but the small group we're part of." She adds that, "if we put peace into each cell, the whole being will be sound." The group's commitment to a common objective is essential for success, and to accomplish this Sister Annette expresses positive messages to teachers as well as students and their parents. These messages circulate and the values of the College come to permeate the group.

A special case or a traumatic situation is not handled in a group setting; the administrator must be able to act without emotion to ensure that the establishment runs smoothly. The College has experienced such situations, although not too often. Sister Annette explains what happens:

> *I'm not an emotional person, I tend more to logic. But I admire people who are emotional, since they can feel things I don't feel. But I feel compassion for them because their emotion destroys them little by little... It's easy for me, after a traumatic situation, to write the message that circulates around the College, since I've taken care to remove all the emotional aspects. Where the students are concerned, I have several girls convey the message to their friends but in no case must they stray from the text that I've written. My experience has shown me that a traumatic situation proceeds more quietly this way. While there is richness in emotion, it is also a handicap that ends up destroying people.*[19]

Regardless of the situation, one must weigh the pros and cons and be in possession of one's means. It is important to be logical and keep one's equanimity so that solutions can be found to all problems. Sister Annette remarks:

> *In fact, it is people who cause the problems. By demystifying the problems, we can do what we thought impossible... It's not me but the team around me that finds solutions. They know they can't come to the meetings with problems but must come with solutions instead, so that we can choose the best ones. When building the cultural centre, I was doing business with two engineers, two architects, an administrator and a manager. Everything took place without problems because the manager, a technician who oversees the construction, was a very calm man.*[19]

As administrator, Sister Annette must make decisions. This is not always easy. However, "time, which is a great master" often lightens the task. An example is coeducation:

> *When the parameters change and the competition becomes stronger, you have to change. My decision had been made for some time. I knew that the College had to become coeducational but I would have altered my decision if the parents and the Board of Directors had been opposed to it. In fact, by the time we made the decision, time itself had cleared the way.*[19]

She continues:

> *Since the College is still fundamentally a female milieu, I'm pleased to be educating boys and having them become gentlemen. This feminine aspect will help them grow... Their politeness and refinement impress me.*[19]

Nonetheless, certain decisions haven't yet found satisfactory, or even definitive, answers. When asked if religion should be removed from the school and handed over to the parish, Sister Annette is reluctant to take a position because she doesn't know what is best for the child. Time will tell us, she concludes.

The people who will represent the institutional future of the College are also a long-standing concern. Towards the end of the 1970s, the authorities of the Congregation were aware that they no longer had the numbers necessary to operate all the schools. They knew they would have to make choices.

The introduction of lay staff to the College since the 1966-67 school year demonstrates just how critical the situation is. When Sister Annette was appointed Principal in 1971, the situation was of some concern. Out of 41 teachers, only 20 of them were nuns, between 45 and 50 years of age. Moreover, the three nuns who worked for the administration, the two who were in the secretariat, the four in the library, and the five in music would certainly not be enough if there were to be increases in the numbers of students admitted to the College.

The Parents' Association frequently made it known to the authorities of the Congregation, that it absolutely wanted the College to continue its teaching mission as a private establishment. There had been no lack of proposals and studies on the future of the College over the years, but no precise answer emerged.

As Principal of the College and a member of the Congregation of the Sisters of Notre Dame, Sister Annette followed the situation closely and participated in numerous meetings of the Transfer Committee whose members were mandated to propose an action plan. Finally, the new Regina Assumpta College Corporation (1995) came into being on July 1, 1995.

Legally, the new Corporation is a non-profit corporation whose mission is to teach Christian education to young girls. The new Corporation signed a seven-year lease with the Corporation Les Soeurs de la Congrégation de Notre-Dame. It benefits from all the buildings and furnished property of the former corporation with an average annual rent of $100,000. As a tenant, the new Corporation can make all the desired expansions and improvements. However, it must advise the Congregation with a notice of 30 days. A new Board of Directors was appointed, made up of nine people, including four who belonged to the former Corporation. Sister Annette described the choices that were made by her Congregation:

> *A full transfer was one of the options suggested by the Transfer Committee. I favoured this option myself. However, in selling the buildings, the Congregation would also be selling the name of the College, the list of students and the telephone number. That was a very mercenary transaction which would likely have destabilized the teaching body. In its wisdom, but also because it was attached to the work of Marguerite Bourgeoys, the Congregation decided that the transfer of property would take place in the form of a contract with a lease. The name of an institution has a history which is perpetuated and this is important for the people who work in this institution. It's reassuring that the values of Marguerite Bourgeoys continue to be upheld, after 300 years.*[20]

The new corporation is secular but continues to reflect the mission and values of Marguerite Bourgeoys. The link with the Congregation is intact since it remains the owner of the buildings. Moreover, when the lease comes to term in 2002, Sister Annette will request her Congregation to extend it under the same conditions because, as she says:

> *The College is a tenant, but we remain our own masters. Since it is the members of the Board of Directors who negotiated the amount of the first lease, there should be no problem in negotiating a second contract. I manage the College as before and this is important because, since the average age of the sisters is 73 today [2000], in 7 years, it will be 80.*
>
> *Moreover, we have to hang onto our gains with the ministère de l'Éducation. The teaching permit we have, which is open-ended in terms of length, is very important since we don't have to produce a six-inch thick file every five years. It's also important for grants.*[20]

Therefore, when a sister leaves the College, she is replaced by lay personnel. The directors and their assistants are all lay staff. In a few years, the new corporation will belong entirely to the secular side, men and women, who will carry forth the mission of Marguerite Bourgeoys. The new principal will have to know the values of the Congregation in order to protect the work and the mission but she should also have her own philosophy. Sister Annette isn't worried at all, since "the lay staff are ready to move forward, to continue the educational mission" begun 300 years ago by Marguerite Bourgeoys.

Sister Annette also takes care of the future staffing process with the Ministry. She takes great care that the positions, which yesterday were held by nuns are given to people who respect the philosophy and values expressed by the religious congregations.

Sister Annette pays as much attention to the students as she does to their parents or the staff of the College. The selection of students or the hiring of personnel is not reduced to just a report card, curriculum vita or a simple interview. Whenever she can, Sister Annette invites the person to share a meal with her, since "upbringing is demonstrated on this occasion." If she were able to see people in their living situation, she would be better able to "go deeper, rather than having to be satisfied with selecting by parameters."

We are living in society but our social responsibility remains individual. As a member of a congregation whose mission is education, Sister Annette has given a great deal of thought to the future of religious communities. She shares her thoughts:

> *An active community lasts only 300 years in history, having been founded for a specific mission. For Mother Marguerite Bourgeoys, it was education... The nascent communities open the way. Once that's done, they must make way for those who will follow them... When the mission comes to an end, the community does too...*
>
> *In an industrialized society, the place for the religious communities no longer exists. These communities must go to countries that need them, or they must specialize... A community having specialized in AIDS five years ago would have succeeded. Now, it's too late... Having a vocation in my community would make no sense. Young novices would be living with [women old enough to be] their mothers and grandmothers. I would encourage the communities to bring their novices together in a new mission... In my day, the vow of poverty was important. Now, I would insist on the vow of chastity. I would have pronouncements of temporary vows, with five-year commitments. I would train missionaries, leaders able to take the society in hand and be able to govern, not for the next mandate but to accomplish things... Now, there are just politicians seeking power.*[19]

Our awareness is shaped by our experiences. As a young girl in her village of Sainte-Angèle-de-Monnoir, the core of her life was a collective awareness, instilled in her by her parents and the parish priest. Later on, as a student and then a young teacher, her individual awareness took shape. But with her arrival at the College, she began to develop a social awareness. She says:

> *I don't want to pay a man who smokes and drinks. How can a person who has no concern for his own health be concerned about the health of the youngsters entrusted to him?*[19]

For three or four years now, Sister Annette's social awareness has been transformed into a global awareness. Indeed, the new information technologies, including the Internet, have brought these realities, which not long ago remained quite remote much closer:

> *Events such as Rwanda come much closer... The Internet doesn't transmit only bad news, it's also a tool for sharing knowledge... That's what makes me say that there are going to be other awarenesses, spatial ones, for instance.*[19]

Sister Annette works long hours because she likes to work. But it's mostly at night, when everything is calm, that she can work at her own pace without interruption. She says:

> *My constitution serves me well and I find every reason not to go to bed... I'm giving my all to what I'm doing, but it's still necessary to have a philosophy of life to make unpleasant things pleasant.*[19]

AT THE DAWN OF THE YEAR 2000

Regina Assumpta College received 1,800 students for the 1999-2000 school year. On the material level, it is a "thriving school, in good shape" which houses girls and boys from very diverse backgrounds. Sister Annette has tabulated as many as 37 languages that can be spoken within the College.

Sister Annette has various observations on the diversity of the nations represented at the College:

- The importance accorded the children is not the same from one ethnic group to other.
- Girls and boys don't learn the same way.
- Teachers don't teach in the same way; the men are more given to facts and figures while the women tend more to analysis-synthesis.

In light of these observations, she also raises numerous questions:

> *How can we help these diversities to converge while allowing each group to preserve its*

> *own patterns and those that spring from each person's interior life when we know that, unlike before, a generation does not last 25 years, but more like two or three years? How do we make the two sides of the young person's brain function when we know that girls don't learn the same way boys do? Do the teachers at the College have the training to teach in a multi-ethnic society? Have we grasped the full extent of this ethnic diversity? Have we considered what education should be in a multi-ethnic milieu?*[16]

This is Sister Annette's daily challenge, to be achieved as follows:

> *Passion is important, it lets the children be open. You mustn't kill the passion, it must be nourished. That's why the next school year CRATIC [Collège Regina Assumpta Technologie de l'Information et de la Communication] will come into being.*[16]

From the start of the 2000-2001 school year, Sister Annette will be "connecting" her first-year high school students by introducing personal computers into the classroom, since she is persuaded that the computer is already a common part of the daily life of today's youth.

Regina Assumpta's Cultural and Sports Centre is well run. The many activities it offers are very popular, particularly the music activities, thanks to a young teacher that Sister Annette describes as "somewhat eccentric, but very professional." However, she knows that "a significant upheaval is required, since a project never lasts more than five years." The great upheaval she envisages is an avant-garde recreational centre where education takes place but not in a conscious way. She discovered this new concept, which is geared to 10-77 years old when she visited the Epcott Centre in the United States.

Sister Annette is having so much fun that she has no thoughts of her retirement. She remarks that:

> *... retirement isn't automatic. It can be a decision related to one's physical, or possibly behavioural, condition... Canon law governs the religious communities and stipulates that all superiors must leave their mandate at the end of six years. As Principal, I'm considered an employer... so, there is no restriction as to the length of my mandate.*[20]

ENDNOTES

1. The term in French is *école du rang*, so called because of the way farmland was laid out in rural Quebec: long strips (*rangs*) perpendicular to the main road.

2. Desbiens, J. Le Collège Regina Assumpta, 1955-1995, Quarante ans d'éducation au féminin, Fides, Montréal, p. 68.

3. Desbiens, J. Le Collège..., p. 89.

4. The Code of Canon Law is the reference text of the Catholic Church. Prepared by the Papal Commission, it features several books, each divided into parts, sections, titles and canons. As a law, the code governs the spiritual and temporal as well as persons and property within the Catholic Church. It decrees that the directorship of a Superior must never exceed six years.

5. Desbiens, J. Le Collège..., p. 114.

6. Desbiens, J. Le Collège..., p. 142.

7. Desbiens, J. Le Collège..., p. 214.

8. Desbiens, J. Le Collège..., p. 216. The College's sources of revenue are the academic fees and the cafeteria-residence fees paid by the parents. These two items represent approximately 75% of the revenue. The costs for extracurricular activities, such as music and drawing, which are also assumed by the parents, represent no more than 4%. Government grants, in the order of 20%, are allocated for each student registered in high school and college. The primary level does not receive

any grant. Finally, the school' store and donations make up the last category of revenue, often representing less than 1%.

9. Desbiens, J. Le Collège..., p. 248.

10. With the directives of Vatican II, the sisters had to "become aware [...] of the importance of human values [...]: justice, peace, freedom, truth. The values based on a new current of thinking developed in the Church of Vatican II: pre-eminence of the person over the institution" (Desbiens, J. Le Collège..., p. 237). This new perspective meant that the religious communities "had to return to the sources of all Christian life while adapting to the demands of the new society." (*Op. Cit.*, p. 237). In 1968, the Sisters of the Congregation of Notre Dame held an extraordinary chapter where they "expressed a desire for a renewal of faith in the charisma of Marguerite Bourgeoys." (*Op. Cit.*, p. 240). This reorientation would be important in terms of the dynamics of the future relationships among the sisters of the College.

11. The Royal Commission of Inquiry on Education in the province of Quebec is often cited by its short name, The Parent Report. Why a Royal Commission of Inquiry on Education? Beginning in 1956, such a study was requested by numerous bodies because of the many teaching, administrative, and financial problems education was experiencing in the province.
    The law instituting the Royal Commission was adopted on February 28, 1961 and received formal sanction on March 21, 1961 under the name of 9-10 Elizabeth II, Ch. 25. A number of individuals participated, presided over by Monsignor Alphone-Marie Parent, Vice-Rector of Laval University.
    The Parent Report was several years in the making and was presented in three parts and five volumes, dealing with all aspects of the province's school system.
    Part I was presented in April 1963, and was the outcome of two years' effort - 1961-1962 - of public hearings, presentation of briefs, and preparation of special studies. It described the higher structures of the school system in the province of Quebec from the time of colonization to the early 1960s.
    Part II, in two volumes, was presented in November 1964, and was the outcome of a lengthy study and analysis, many interviews, and extensive travel in Canada, the United States, and Europe. Divided into four sections, Part II was entirely devoted to the teaching structures of the school system. The first section dealt with the reform of teaching, the second section described the levels of teaching, the third section was an exhaustive look at the programs of study, and the fourth section dealt with educational services.
    Finally, Part III, also in two volumes, dealt with the administration of teaching. Divided into three major sections, Part III covered (A) religious and cultural diversity in the school system and unity of administration in the midst of such diversity in the school system; (B) educational funding; and (C) agents of education.

12. Desbiens, J. Le Collège..., p. 319.

13. Desbiens, J. Le Collège..., p. 321.

14. Desbiens, J. Le Collège..., p. 322.

15. Desbiens, J. Le Collège..., p. 325.

16. Sister Annette Bellavance, CND, Principal, Regina Assumpta College, interview of October 14, 1999.

17. Desbiens, J. Le Collège..., p. 328.

18. Regina Assumpta College, 2000-2001 Directory, pp. 6-7.

19. Sister Annette Bellavance, CND, Principal, Regina Assumpta College, interview of August 18, 1999.

20. Sister Annette Bellavance, CND, Principal, Regina Assumpta College, interview of February 9, 2000.

21. Regina Assumpta College, 2000-2001 Directory, Services for gifted and talented students, p. 36.

22. Regina Assumpta College, 2000-2001 Directory, Educational Services, p. 18.

23. Regina Assumpta College, 2000-2001 Directory, Private music lessons, p. 37.

24. Regina Assumpta College, Cultural and Sports Centre, Fall '99 brochure; Edphy-Regina Assumpta Day Club, Summer brochure '99.

25. Regina Assumpta College, 2000-2001 Directory, Academic Life Services, pp. 46-49. The personal services include extra-curricular activities, inter-school sports activities, the Academic Services, Recreational Services, Pastoral Services, Health Services, and Accompaniment Services. The complementary services are the use of the elevator when necessitated by the student's health, school insurance, the cafeteria and the snack-bar, the vending machines, the ID card, the health insurance card, personal lockers with locks, bulletin boards, public transit passes, phone messaging in case of emergency, lost or stolen articles, dress code, snow storms, school transportation by private bus, and sale of used books.

26. Regina Assumpta College, Future Institutional Staffing, Internal document, 1995. The Progress Report to the authorities of the Congregation proposed the following:
    - *Status quo* is a short-term solution that does not resolve the question of future institutional staffing since it does not take into account the ageing and reduction of religious personnel within the College. This hypothesis was rejected by the Congregation.
    - *Leasing with managerial contract* would see the Congregation relinquish its administrative responsibilities over the College while keeping ownership of the land and buildings in exchange for a symbolic or money-paying rent. This hypothesis was also rejected by the Congregation.
    - *Commercial sale* where the debt would be quantified and converted and the goods sold at their real value. This hypothesis was also rejected by the Congregation.
    - *Sale at a loss* because the debt would be reimbursed without being converted to present value.
    - *Transfer after settlement of debt,* which then requires the transfer of goods to the College for the amount of 1 dollar.
    - *Full transfer* would see the Congregation erase the debt and cede the College for the symbolic amount of 1 dollar.

    The Board of Directors of the College and the local authorities were interested in hypotheses 4 and 5. The new Board of Directors is made up of nine members, four of whom are designated by the Corporation of the Sisters of the Congregation of Notre Dame, three by the Corporation of Regina Assumpta College Alumnae, two are appointed by the Board plus the Principal who does not have the right of vote.

[Translated from French by Sybil Murray-Denis]

LAW AND JUSTICE IN COMPARATIVE PERSPECTIVE: SIMULATING THE APPEAL OF *OCALAN VS. TURKEY* TO THE EUROPEAN COURT OF HUMAN RIGHTS

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Abstract

During the Spring, 2000 term, I will be teaching an undergraduate, liberal arts, political science course "Law and Justice in Comparative Context" and using a semester-long simulation of Kurdish rebel leader Abdullah Ocalan's appeal to the European Court of Human Rights of his capture, conviction and death sentence by Turkey. Students will be assigned to prepare and "play" the roles of attorneys for either Ocalan or Turkey or as the judges of the ECHR. The interactive conference presentation will share a systematic analysis and evaluation of the preparation and operation of the simulation in this course.

KEYWORDS: Human Rights, Capital Punishment, Due Process, Self-Determination, Terrorism

INTRODUCTION

During the Spring, 2000 term, I will be teaching an undergraduate, liberal arts, political science course "Law and Justice in Comparative Context" and using a semester-long simulation of Kurdish rebel leader Abdullah Ocalan's appeal to the European Court of Human Rights of his capture, conviction and death sentence by Turkey. Indeed, the Turkish government has just granted Ocalan a stay of execution pending ECHR consideration.

Students will be assigned to prepare and "play" the roles of attorneys for either Ocalan or Turkey or as the judges of the ECHR. Students playing the various roles will not only gain substantive insight into these legal and political issues but will also experience opportunities to develop skills for critical thinking and effective presentation.

The case raises four sets of legal issues. First, was Ocalan's "abduction" from Kenya by Turkish commandos, apparently with United States assistance, a violation of international law and human rights? Second, were the "special" rules of Turkish detention and trial a denial of procedural due process? Third, were Ocalan's actions justified by deprivations of Kurdish rights? Fourth, would the imposition of the death penalty be a violation of human rights?

The case, however, unfolds in a larger political context. Turkey, for example, has a fragile coalition government, which includes a critical, far-right Nationalist party which demands Ocalan's execution. On the other hand, Turkey actively seeks membership in the European Union. Its candidacy revolves in significant part around the European Union's perception of Turkish regard for legal and minority rights. Moreover, Turkey's relationship with Washington is complicated by the role of the Kurds in the geopolitics of the region, especially with regard to Iraq and Iran. These concerns also implicate regional and global issues with regard to "terrorism."

The conference presentation will share a systematic analysis of the preparation and operation of the simulation in this course. In keeping both with WACRA's philosophy and the interactive dynamic of the simulation approach, the mode of my presentation will be a de-briefing conversation with expert colleagues. This analysis and evaluation will utilize the following model which I have developed for simulations. [Note that a preliminary issue of simulation development is whether to select – and shape – an actual case as I have done here or to build a realistic hypothetical. Both strategies require one to consider the dimensions identified below.]

A MODEL FOR SIMULATION CASE DEVELOPMENT

EDUCATIONAL GOALS

Although all simulations have significant openness, the texture of the simulation should be developed consciously and purposely to allow participants' choices to be sensible and meaningful as well as creative. An effective strategy for achieving the right mix is likely to emerge from a consideration of your goals, available resources, and the powers and limits of simulation as a pedagogical technique. Start with your teaching goals, including goals specific to the particular course and major as well as liberal arts and/or general education goals. Consider specifically the match between your goals and each of those listed below, which are frequently claimed for simulations. Note well: one value of simulations, as with other innovations, is that they encourage and guide us as teacher/learners to re-examine the goals and premises of our pedagogy. Therefore, you are encouraged to do more than check your current goals; consider whether you, your students, your institution, your profession and your society would be well-served by commitment to new goals. A. *Substantive knowledge*: [1] subject focus, [2] roles and persons, [3] institutions and [4] processes. B. *Skills*: [1] information processing, [2] social interaction, [3] reasoned judgment, [4] role playing, [5] presentation/communication and [6] crisis management. C. *Affect*: [1] motivation and interest, [2] empathy, [3] self-awareness and [4] self-confidence. D. *Classroom atmosphere and relationships*: [1] student-student, [2] teacher-student and [3] academic-real world.

SUBSTANTIVE FOCUS

There are three elements to consider: [1] selecting or designing a simulation that complements other course elements, [2] selecting or designing a simulation that engages you and your students, and [3] selecting or designing a simulation that is manageable. Identify one or more substantive topics with a significant relationship to course materials and ideas, which you believe you and your students would find engaging. Note connections to important course ideas. Consider problems of manageability and ways of striking an appropriate focus: if too broad, it will take too much time in preparation and execution and will invite superficial performance; if too narrow, it will become overly "technical" and will miss an opportunity to appreciate connections and "macro" issues.

INTERACTIVE CONTEXT

Imagine several social situations in which the substantive focuses might be considered. Note that potential contexts will vary at least on the following factors: formality, complexity, size, time and other required resources. For each context consider in detail strengths and problems.

COMBINING SUBSTANTIVE FOCUS AND INTERACTIVE CONTEXT

Ideally, consideration of substance and context jointly will give one a chance to strike the best balance. Restate the preferred combination as precisely as possible.

STARTING CONDITIONS

1. Identify the participant roles, considering the mix of goals and other characteristics. This flows from the simulation goals, the substantive and contextual circumstances and resources. You should consider a mix of people who: [a] are representative of key groups, [b] would have critical expertise and [c] would provide for productive interaction, cooperative and conflictual. 2. Consider a method of assignment of roles to students. Essentially one either attempts a conscious matching -- straightforwardly to maximize the ease and performance or "counter programming" to challenge students intellectually and/or emotionally -- or randomly to promote simple choices and the perception of fairness. 3. Determine the rules of interaction which guide game play -- what is and is not permissible, how and by whom is rule enforcement determined, etc. In many cases these will flow naturally from the context [ex. rules of evidence in a trial], but make sure [a] that you consider special rules necessitated by resource constraints, etc. and [b] deal explicitly with general and special rules, either by providing them in the materials or by directing students to available sources. Note well: a certain amount of rule ambiguity is probably productive, but too much will frustrate students and may endanger the flow of the simulation. 4. Establish other environmental conditions such as initial resource allocation, information conditions, and time. Sometimes initial resources may be presumed to flow from roles, but remember that power is critical to a simulation and students may need to be alerted to the power dynamics of the simulation. Indeed, one of the key differences between "real" academic study and simulations is the simulation's emphasis on the strategic dimension. Simulation information conditions also need some attention. Students are not always comfortable with a classroom situation in which all information is not shared by all. Yet consideration of these matters is another opportunity to gain insight. Time must be specified in three senses: [a] how much time should be allocated during classroom hours [it is legitimate to expect students to devote reasonable non-classroom hours to the simulation]? [b] should the simulation be placed in the past, present, future or "no" time? and [c] how should classroom time be spaced and what should be the relationship between the chronological unfolding of the classroom clock and calendar and the simulation clock and calendar?

STUDENT PREPARATION

You should develop a program to help students become ready intellectually and emotionally to play their parts and contribute to a productive simulation. One polar approach is to prepare a complete packet of materials and instructions that provide each student with all relevant information. Students can quickly digest the information and begin play. Another polar approach would be to give students "bare-bones" instructions and make the gathering and mastery of information part of the exercise -- this makes a good library research assignment. Considering your course and simulation goals, the complexity of the problem and resource constraints, devise a strategy along the continuum. Note that the specific dedication of class and/or advising time for briefing students on the simulation is almost always necessary.

RUNNING THE SIMULATION

Even if you have done a good job designing the simulation and preparing students, the simulation itself usually presents at least two additional related challenges: the instructor's role and simulation dynamics. 1. One polar position on the instructor's role is to assign yourself a significant role so that you can intervene "naturally" and regularly to guide the direction, pace and flow of the simulation and correct errors before they seriously affect the simulation. The other polar position is to be purely an observer, allowing the participants to determine the course of the simulation, for better and for worse. Your position along the continuum will be a function of factors considered above, but you should have your position clearly in your own mind before the simulation starts. Although it will be sometimes necessary, nothing endangers a simulation's *élan* more than the instructor as *deus ex machina*. Note that certain contexts lend themselves to a moderate instructor role [ex. trial judge, committee clerk, etc.] 2. Simulation dynamics. Not unlike lots of things in life, the pace and flow of simulations is most problematic at the beginning and at the end. At the beginning, students are reserved about plunging into their part and uncertain about what "the teacher wants." For part of this you must simply be patient and allow momentum to build slowly. Consider, however, how preparatory materials and activities might help students get going earlier. Consider as well whether you can: [a] structure the starting conditions to prompt early activity and/or [b] plan to introduce a "disturbing" event early in the process to stimulate a higher level of activity. The problems at the end are two fold: [a] stagnation and [b] closure. Here the momentum may be so well-established that participants are going through the motions. As above, consider starting conditions and "disturbing" events. The closure problem is, in a sense, the opposite problem. Sometimes the situation has not, indeed perhaps cannot, draw to a clear conclusion. Yet students feel compelled to force it towards closure, both because there is a natural inclination to do so and because they assume "the teacher wants us to get 'an [the right] answer.'" Indeed, you may share a preference for a clean end to the simulation. Two points need to be made. First, this pressure, being natural, can be realistic and productive -- juries do want to reach a verdict, legislatures do want to pass legislation. If you can control the pressure, use it to allow the participants to learn something important about social situations. Second, other "natural" circumstances often obstruct closure -- hung juries and gridlocked governments are not unusual; maybe the very unsatisfying messiness of having no ending, no winners and losers, will teach important lessons. One further comment about "disturbing" events. Although this can be a valuable way to intervene throughout the simulation, two cautions are necessary. First, try to introduce new elements in ways that are not contrived. There are always many significant real world players not specifically represented in the simulation; can you introduce new events more naturally by acting through them? Further, nature can sometimes introduce the new element; there's nothing like a good flood, earthquake or epidemic to spice up a situation. Second, don't overuse this power or students will feel manipulated and will be discouraged from responding effectively because of the fear that you will wipe out the fruits of their labors arbitrarily.

STUDENT INSIGHT AND GROWTH

One of my most serious early failings in using simulations was my overemphasis on designing and running the simulation and inadequate attention of promoting student insight and growth. The teacher is so caught up producing a well-conceived and well-executed simulation and students are so caught up in doing a "good job" that a process is not carefully built to encourage the student to step back from the simulation and consider the experience. These insights usually come at the "micro" and the "macro" level. At the micro level students should come to appreciate detailed elements of substance and strategic and ethical elements of process. At the macro level students should reflect upon structures of knowledge, the methodology of learning and the systemic character of interactions and institutions. The principal problems with encouraging student reflection are as follows. First, you must clearly delineate those simulation activities that are to be undertaken "in character" and those to be undertaken with detachment. Second, solicit insights in such a way that students do not give you an unreflective chronology of what they did. Third, give students a separate opportunity to critique the simulation. Fourth, alert students to the value of reflection at both the micro and macro levels. Fifth, require both contemporary observation and reflection and a retrospective drawing of conclusions. Consider whether and how you would use journals, de-briefing discussions and a final report. Note well: a collegial de-briefing is very important.

EVALUATING STUDENT PERFORMANCE

Just as promoting insight and growth relates to but is distinct from design and operation, evaluating student performance overlaps partially with promoting insight and growth. For students, preparation for and performance in the simulation ought also to bases for evaluation.

Preparation

With regard to preparation, the major question is whether you will require a separate report prior to the simulation or collapse this into an evaluation of performance. The latter saves your time and the students but rests upon a presumption that differences in performances faithfully reflect differences in preparation. Given the simulation's relative openness and reliance upon oral interaction, this presumption may be shaky unless characteristics of your students and the simulation suggest otherwise.

Performance

The major difficulties here relate to uneasiness over the evaluation of oral and social skills and considerations of varying role expectations. With respect to skills, many may be more uncomfortable than they would be evaluating knowledge of substance, either because we think such matters to be more subjective or natural rather than developed or less important than substantive knowledge. I think that the last concern, while traditional in education, misunderstands the complex relationship among skills, substance and education; in any case, one can adjust the weightings of various components. The second concern is, I believe, fallacious both because it ignores the intelligence basis for knowledge and capacity of persons to improve skills through practice. The first concern does alert us to the need to be careful and systematic in our evaluation, yet most of us, I would think, do a considerable amount of teaching and evaluating of student processes -- reasoning and presentation. The role variation problem requires sensitivity. A student says in the journal, "I didn't participate much because my character prefers to act behind the scenes rather than in public." This may be correct; of course, it may be a cop-out. This is one thing you should consider when setting up the roles. The other response is that even if the student correctly characterizes his/her role, they must show a pattern of activity behind the scenes to demonstrate a faithful portrayal.

EVALUATING THE SIMULATION

If there is one part of the process that I still need considerable work on, it is evaluation of the simulation. As the simulation unfolds, I notice things that could have been improved; maybe I make a marginal note. What I don't usually do is keep adequate notes and then undertake the comprehensive evaluation of the experience soon after it is completed. Moreover, I don't always give students a clear chance, separate from the grand concluding paragraph of their reports, to walk through the simulation with me critically. I also don't often reflect then on whether that context might be extended or better applied to another substantive focus, or vice versa. Then a year or two later, when I open my computer file, I cannot interpret my hard-copy marginal notes and have only the vaguest good and/or bad feelings about the experience. Certainly, one's skill at simulations improves with repeated use; yet a commitment to and plan for steady and cumulative improvement would be preferable.

THE INTERROGATORY CASE STUDY HISTORY LECTURE

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Abstract

Pedagogical efforts to overcome deficiencies of traditional lecture method of teaching history have been variously successful. However, insufficient attention has been given to superior methodological advantages of lecturing, and its compatibiliity with psychological conditions of undergraduate learners, for efficient and imaginative communication of historical knowledge and interpretation. These educational advantages to both lecturers and their typically undergraduate audiences may be maximized when lecturers employ an interrogatory case study approach to textual subject matter. This paper presents an explanation and an analysis of the aforementioned thesis and includes a sample interrogatory history lecture case unit.

KEYWORDS: Teaching History, Lecture Method, Interrogatory Case Study, Textual Narratives, Documentary Texts, Undergraduates, Efficient Learning, Case Study Unit, Interpretation.

INTRODUCTION

Especially in subjects like history, the direct lecture method of classroom teaching has been under attack for many alleged crimes over the years. Certainly lectures can be tedious, difficult to follow, and unimaginative when delivered by inexperienced or uninspired or careless speakers. Desirable instructional impacts are also diffused and ineffectual if a lecture hall is uncomfortable or too comfortable, distracting or dull, cozy or gargantuan. Still, even in adverse environmental conditions, when crafted by a skilled and knowledgeable teacher, a typical history lecture can become a minor work of art as well as a clear and concise vehicle for efficiently imparting pertinent aspects of what has been called the usable past.

Abstractly considered, there are a number of advantages of employing the lecture method of teaching history. It can become a systematic, logical, discursive presentation of a teacher's organization, evidence and arguments relevant to a chosen historical subject-matter. Also, its orderliness makes lecture technique flexible in that it is easily adapted to both visual and aural aids to understanding. Then, too, there is the lecturer's personal charisma and speaking style. Some lecturers are entertaining as well as informative, provocative as well as instructive. Finally, lectures are an efficient means of instruction because they can reach sizable audiences with substantive messages in short periods of time.

Of course, no pedagogical technique is perfect in practice. Lecturing does have its downside. Personal talents vary, and not every lecture is intrinsically interesting to every listener. Nor is a lecture, even one presented by a supremely capable speaker, necessarily a desirable way to teach small numbers of people. After a time, among intimate groups, lectures may seem impersonal, overly formal, forced. Especially in familiar groups, habitual reliance on lecturing tends to diminish the value of alternative methods of communication such as the focused conversational exchanges characteristic of seminars and workshops.

It is also true that a little educational psychology can go a long way towards meeting instructional improvement goals. This is particularly the case when one's academic audience is made up mostly of young undergraduates. Essentially, history is the remembered past. Understandably, though, most young people tend to be present-minded. Their intellects are not usually practised in easy versatility, considered judgement, and subtle comparisons. As a result, they often find it difficult to put themselves into others' shoes – especially if the shoes are buckled and date from the seventeenth century.

An important additional condition is that, in recent decades, there seems to be a breakdown of our pedagogical capacity. In many of our undergraduate colleges, students' reading skills are poor, their intellecual organization is confused, and their powers of concentration appear unpractised and undeveloped. In short, these days it is simply hard for many students to follow a lecture successfully – to simultaneously keep its theme, its pertinent evidence, and changes in the mode of presentation of its logical structures clearly in their minds. If, in addition, the lecturer is unskilled, chances of many students' following the lesson approach zero.

The upshot of the current unfortunate academic conditions has been that lots of pedagogical cleverness and great quantities of mental energy have gone into efforts to jazz up old-fashioned history lectures or to replace them entirely. It is certainly true that historical motion pictures, overhead projection slides, audio recordings, students' historical role-playing in classroom games, and computer simulations of great events have all been tried more or less successfully in the quest after an intellectually respectable alternative to the instructional hazards of an exclusive reliance on daily lectures.

None of the various alternatives to lectures is necessarily a bad choice in itself, and some of the recent technologies are quite enjoyable and useful. However, unless it is proposed to elminate teachers from history classrooms, they will have to find an orderly, efficient and comprehensible means to organize, relate and interpret historical events to students (and, of course, to evaluate students' understandings of what has been imparted to them).

More importantly, as long as college and university history departments face large numbers of students with limited numbers of teachers, the lecture method of instruction – supplemented by alternative techniques – is potentially the most efficient and intellectually satisfying means of organizing, relating and interpreting historical subject-matter.

"Potentially" is the key word here. Even in history courses taught as a part of distance learning programs, many lecturers closely follow a selected, formal text's narratives or documentary materials in their presentations to beginning students. In so doing, they run the risk of boring themselves and their listeners, and they may also fail to offer to students their own best academic judgements of the meanings of the events being treated. At this basic level of college and university teaching, there is no need to refer to precious distinctions among decision-making cases, predictive cases and descriptive cases. All historical lectures are descriptive case studies, though not all history lecturers recognize them as such. Nor does this fact about historical lecture presentations render historical cases, per se, useless in the construction of decision-making and predictive studies.

In fact, since most history lectures are given to beginning univesity students – undergraduates – it is, perhaps, vital to point out that no effective history lecture is a mere recitation of information (persons, ideas, institutions, events), unless the lecturer's purpose is limited strictly to a useful review of evidence relevant to preparation for an imminent examination or assignment, or to an analysis of such a recently completed task. Indeed, the main purpose of a typical history lecture is always interpretive; that is, the lecturer aims to make sense of certain selected events of the past in clear, economical, precise and imaginative terms that his or her listeners may be reasonably expected to understand, recall and evaluate. This pre-eminent pedagogical objective is especially important when lecturing to large classes of undergraduate students. Grand, overarching historical theses are to be avoided as are intricate, highly detailed narratives. Instead, attentive students will value an emphasis on major questions addressed by careful, orderly presentations of relevant information each important aspect of which is given clear, thought-provoking, relational significance by the lecturer.

Since most undergraduate history students are not systematically attentive, it is not surprising that many of them may notice no relation at all of their teacher's classroom lectures to their texts' treatments of the same subjects. A different kind of serious problem for students may arise when too great a departure in lectures from textual materials risks losing the attentive students in the gap between a text's and a teacher's coigns of vantage.

As a practical instructional matter, then, how can the perplexity of attentive students be reduced and the learning curves of inattentive students be enhanced by lecturers? More exactly, how can the potential of an efficient, intellectually stimulating, orderly, interpretive lecture be actualized without incurring the risk of confusing departures from textual material? The answer is to deliberately structure the undergraduate history lecture in such a fashion that each topic treated becomes a separate case or unit of inquiry. The method of doing this suggested here is to follow a text's general narrative or documentary structure, but to impose upon it a clear, progressive, consistent interrogatory form which permits evidence to be refocused, reducing it to manageable proportions, and interpreting it in a piecemeal but provocative fashion.

Briefly, the lecturer makes each topic treated into a manageable case study and turns each of the segments of the textual treatment of the subject into possible answers to superimposed questions. The interrogatory case study history lecture is given a sample form below which affords an example of the method suggested here. The advantages to the lecturer of adopting it are several:

1. Not only does the interrogatory lecture case study method follow a textual narrative, for example, it also rivets students' attention on each unfolding stage of the story in a clear, orderly and captivating manner. In a word, nothing elicits an answer so well as a question. Nothing focuses the concentration so well as a question.
2. The lecturer is always in control of the topic because he or she has reduced the textual messages to their most easily organized and simply imparted form.
3. The lecturer's questions may be used later as short-essay questions in examinations.
4. The principal terms (persons, events, ideas) used to answer each question amount to an inventory of possible answers (evidence) to examination questions. Since students are being taught to relate the terms in each case study to specific questions, they will find the terms easier to recall and evaluate. This relational reinforcement also promotes critical (comparative) thinking generally.
5. Each time the lecturer teaches the same case study, new or improved (more precise, more sensitive, more substantive, catchier) questions may suggest themselves, thus enriching the course and the teacher's own stock-in-trade through a self-revising case topic mechanism. As a result, the lecturer's interpretive faculty deepens as well as broadens and becomes more discerning with experience.
6. The same technique is easily adapted to diverse historical texts and, in fact, makes evaluating texts for adoption relatively straightforward because their internal organization can be judged quickly for its adaptability to an interrogatory case study approach to lecturing.

The narrative textual example shown below is not perfect, nor will it ever become so. The idea is to keep working on it each time it's used until the lecturer has made it do exactly what he or she wants it to do on each successive occasion.

INTERROGATORY CASE STUDY LECTURE: THE UNITED STATES & WORLD WAR I

Question 1: What was the United States' relation to Europe before 1914?

A. Diplomatic background: disarmament conferences, mediations, international cooperation agreements, dollar diplomacy, Spanish-American War – brought the United States into closer relation to European power than before 1898.

Question 2: What was President Woodrow Wilson's reaction to the outbreak of war in 1914?

A. Moral posture right away: neutrality in thought and deed towards "a war in which we have no part".

B. Neutrality policy:

1. easier towards British (trade, culture, ethnicity) because their behavior on the high seas made them only disruptive of neutrals' commerce, but

2. tougher with the Germans (commercially isolated, arrogant image) whose U-boat weapon made them seem murderers on the seas.

Question 3: How did Wilson take advantage of the U. S. moral posture?

A. Mediation efforts: Col. House mission of Jan.-Feb. '16; "Peace Without Victory" speech of Dec. '16; appeals to governments and masses; insistence on "strict accountability" from Germans, and

B. War preparedness program of 1916: Preparedness against whom? An implied threat against Germans to make them behave and turn to negotiations, and

C. Legalistic stickiness on neutrals' rights: broad hints to the British that they may not count upon American aid and ought to negotiate a reasonable peace, but

D. Policy failed though Wilson cannot be faulted for trying for two and one-half years and cannot be blamed for events of 1917 beyond his control.

Question 4: How did the United States come to enter the war and what did this fact mean?

A. Events of early 1917 determinative of policy:
   1. Jan. '17: Germans end Sussex pledge, return to U-boat attacks, and
   2. Feb. ' 17 – Apr. '17: five American merchant ships sunk by U-boats, and
   3. Feb. '17: Zimmermann Telegram – causes national outrage, and
   4. Mar. '17: Russian Revolution begins – makes Anglo-French-Russian entente look democratic.

B. Meaning of American entry into war: looked like an end to American tradition of isolationism because Wilson promised a Progressives-style crusade to defeat militarism and autocracy and to build a squeaky-clean New World Order; in other words,Wilson drew upon and projected abroad the tradition of idealistic republicanism (sometimes called American exceptionalism) which underpins American foreign policy rhetoric since colonial times and is still the main American intellectual approach to the world.

Question 5: What do we know about the fight?

A. small air forces – mostly reconaissance and light bombing missions, a few American aces (CPT Eddie Rickenbacker), used mostly French planes

B. naval task – success of convoy system to protect troops and supply ships to Europe

C. Army – Selective Service Act of 1917: 2.8 million draftees and 2 million volunteers
   1. serious actions at St. Mihiel Salient, Meuse-Argonne Woods, 2d Battle of the Marne
   2. fewer than 100,000 dead and wounded – American casualties were painful but light compared to horrific figures for French, British, Germans, Italians and Russians

Question 6: Who fought?

A. great bulk of American fighting forces composed of white, Euro-American males, and

B. 15,000 Native Americans – BIA slashed budgets in March, 1917, to get Native Americans to become self-sufficient and off reservations; aim was to "Americanize" Native Americans, and

C. about 200,000 African Americans went to Europe in the war, but
   1. shabbily treated by army in Europe and by American civilians near domestic training camps: Houston riots of Aug. 1917;
   2. more importantly, war industries of the North attracted the first mass exodus of African Americans out of the South making race relations once again a national question:
      a. race relations always a national question before the Civil War: most slavers were Yankee traders, capital for planters came from the North, even abolitionism was national before the 1830s;
      b. slavery and race issues appear predominantly southern after 1877 because the South lost the Civil War, because of postwar "bloody shirt" rhetoric in the North, and due to fears of Federal courts to touch race relations since intrusive Federal action in local race relations would have led to national social and economic regulation unacceptable to an age of laissez-faire ideology, and

D. Women: about 10,000 served as "yeomanettes" and "marinettes" in Navy and Marine Corps, respectively; Army employed civilian women as clerks, nurses; lots of civilian women in wartime industries; major change in women's political conditions as a result:
  1. Aug. 1917: Wilson Administration orders arrest of ten suffragists outside White House;
  2. Nov. 1917: New York Legislature approves women's suffrage;
  3. Sept. 1918: Wilson calls for suffrage amendment as "necessary war measure" two months before congressional elections of 1918.

E. Major point: all of the major social groups in the country were directly involved in World War I.

Question 7: How was the domestic economy mobilized for war?

A. First major extra-constitutional government bureaucracies created: WIB, WLB, Food Adm., Fuel Adm., Shipping Board, RR Adm., Fleet Adm., and

B. Entire economic infrastructure under central direction for first time in American history: major ramifications for remainder of century – New Deal, Cold War, regulatory debates of '80s and '90s.

Question 8: What happened to people who dissented from war policy?

A. Alexis de Tocqueville (1830s): talked about what we would now call peer pressure in democracy – uniformity of opinion: serious example of its sway in World War I;

B. George Creel's Committee on Public Information made it a reality: total control of war news and interpretation (spin) of events;

C. Justice department rounded up pacifists, radicals, labor agitators; IWW broken; immigrant radicals deported; domestic intelligence archive started; Gen. Ralph Van Deman's military intelligence networks organized and became basis of J. Edgar Hoover's domestic intelligence networks and military intelligence buildup of 1930s and 1940s; first dawning of what has been called the national security state.

Question 9: How was peace made by the United States?

A. Wilson's problems with peace-making:
  1. domestic
     a. Republican control of Congress after March, 1919, and
     b. poor choice of delegation to Versailles conference – no consultation with Repblicans;
  2. foreign: Treaty involved so many complexities and compromises of American Progressives' ideals it becamse impossible to sell it in America.

B. Events of the domestic legislative treaty-making process
  1. Sen. Henry Cabot Lodge (SFRC) vs. Wilson – unbending personalities committed to opposed visions of American constitutional powers;
  2. Lodge View: Article X of League of Nations Covenant an attack on Congress' war making power and an effort by Wilson to aggrandize the Executive Branch;
  3. public debate turned on fight of internationalist Wilsonians vs. isolationistic Irreconciilables, but Treaty's issues were complex and Lodge was able to attach fourteen complicating reservations to it to confound its backers and moderates.
  4. votes in Senate in Nov. 1919 and Mar. 1920 never attained extraordinary majority required by Constitution;
  5. Wilson's speaking tour of 1919 to organize public support for active United States participation in European and East Asian international relations failed partly because of his stroke and partly because Americans were not persuaded that they were the "indispensable nation";
  6. Congress passed and President Warren Harding signed a joint resolution ending war with Germany in July, 1921.

CONCLUSION

If college and university teaching of history is to continue to be meaningful and useful to large numbers of undergraduate students, its practitioners have to find a way back into the minds of young people. In that case, it may be that the most direct technique for reaching students is to set forth clear statements of historical problems and issues as systematic cases in the form of questions that provoke diverse, provocative answers. This is actually a very old idea, but it can be re-adopted to great effect in ordinary lectures to large audiences of students with minimal risk of confusion, boredom and inefficiency. There is no question here of a resort to formal Socratic methodology since, by definition, a lecture is not a dialogue. Still, one important function of lectures as historical case studies may be to serve as bases or platforms on which to rest diverse alternative teaching techniques whose purposes include reinforcing and extending the lessons initially presented in interrogatory lectures. In fact, the interrogatory case study history lecture may be especially useful when employed in tandem with follow-up discussion group (seminar or tutorial) pedagogical formats.

For the beginning history student, the interrogatory case study method of lecturing reduces unfamiliar topics to manageable porportions at the same time as it provokes logically consistent questions about the topics treated in each case study. It coaxes mental concentration in small, relational doses because it makes ideas, institutions, events and persons relevant to one another within a selectively limited topical range. As such, the method offers students a clear, pointed directional device for mastery of each separate case unit. At the same time, it turns texts of diverse sorts into manageable tools for building up discrete lesson units, instead of them appearing to be dense obstacles littered with mountains of words. It gives students a rational, orderly, reliable set of keys to each case unit. Its querulous approach engages the mind, focuses the attention, and provokes analysis, comparison and judgement.

Finally, the interrogatory lecture case study method of teaching means that history can be taught, and learned, in ways that simulate its actual occurrence in time. If we find it useful to know how people saw the events they witnessed over time, we may find it academically helpful and intellectually satisfying to attempt to reconstruct the questions we think they faced one case at a time.

APPENDIXES

ABOUT WACRA®...

History

Founded in 1984, the World Association for Case Method Research & Case Method Application (WACRA®) evolved from contacts of professors, researchers, policy-makers, professionals and business executives into a worldwide interdisciplinary organization. These individuals shared the common interest of studying and applying the Case Method in research, teaching, planning, training and development. Professionals and academicians from fifty countries have participated in international (summer) conferences on Case Method Research & Application in Lausanne, Switzerland (1980), London, UK (1984, 1985, 1987), Boston, U.S.A. (1988, 1989), Enschede, Netherlands (1990), Berlin Germany (1991). Limerick, Ireland (1992), Bratislava, Slovakia - Vienna, Austria (1993), Montreal, Canada (1994), Leysin, Switzerland (1995), Warsaw, Poland (1996), Edinburgh, Scotland (1997), Marseille, France (1998) and Cáceres, Spain (1999).

The year 2000 summer conference took place from July 2 - 5, 2000 at The Central European University in Budapest, Hungary. WACRA '2000 began with a pre- conference event in Munich, Germany. Delegates had the opportunity to travel by train on the tracks of the famous Orient Express to Vienna, Austria, spend one full day and and two nights in Vienna and then travel on board of the 'Majestic Imperator,' the *train de luxe* of Emperor Franz Josef and Empress Sisi to Budapest, Hungary. The main conference took place at the Central European University in Budapest. The post conference cultural-educational tour took take participants to different parts of Hungary, Slovakia and ended in Vienna, Austria.

In 2001 the University of Lund in Lund, Sweden will host the conference. Advance planning includes activities in Sweden (main conference site), Denmark and Norway. For those who really like long range planning: locations in Cuba, Germany, Greece, and Japan are under consideration for the year 2002.

Since 1998, WACRA® and ACT - The Academy for Creative Teaching - cooperate in a series of winter conferences on Creative Teaching. The first three ACT conferences were held in Lucerne, Switzerland. The Fourth International Conference on Creative Teaching (ACT 4) is scheduled for January 3-5, 2001 and will be hosted by the Wirtschaftsuniversität (Vienna University of Economics and Business Adminsitration) in Vienna, Austria.

The Case Method

The Case Method can be defined in a broad sense by contrasting it with the lecture method. Instead of textbooks, the Case Method uses partial, historical descriptions of specific situations enabling students to discover and develop their own unique framework for problem-solving. The Case Method achieves this goal efficiently and effectively. Data and information are presented in narrative form to encourage student involvement by solving problems actively, by identifying sources of information necessary for problem-solving, by engaging in critical thinking and through group work. (The group work contributes to the development of individuals able and willing to work collegially, etc.). Although "cases" have been used in one form or another by both law and medicine for a long time, the Case Method in the teaching of management and other disciplines is relatively new. The Harvard Business School is well known for its innovative role in this regard. The method has applications far beyond the managerial, business orientation so familiar to many.

New applications for the Case Method in disciplines other than management and business are being explored and research is being conducted on this basis. The Case Method is increasingly applied in higher education and educational administration, the instruction (and operation) of the social sciences, the arts, engineering, agriculture, strategic policy planning, and personnel development in different parts of the world.

The development and increasing affordability of new communication technologies is changing the educational environment for teachers, trainers and students. Institutions worldwide are investigating and investing in distance education, video-based instruction , and computer-assisted instruction. Nine volumes of international case method research papers, cases and presentations attest to WACRA®'s success in providing an important forum in "managing change in multi-cultural settings" and in promoting cross cultural dialogue and development in Higher Education and training.

Objectives

The objectives of WACRA® are to explain, research and advance the use of the case method in teaching, planning and training at all levels; to promote and encourage research using the case method, with special emphasis placed on studying the teaching effectiveness in varied teaching-learning systems; to coordinate development of interactive pedagogical methods involving the case method, simulations and games; to augment the available body of research and teaching materials; to foster interdisciplinary applications and to encourage cooperation with the public sector, the business community and other case method oriented professional specialties on a worldwide basis.

Functions

WACRA® 's main function at the present time is to coordinate research, to facilitate the organization of forums, public discussions, workshops, training sessions, lectures and conferences and develop a worldwide network. WACRA® organizes annual conferences at various locations around the world to provide opportunities and encourage the exchange of ideas, the presentation of planned, on-going and completed research, and the sharing of applications, simulations and games. Papers and manuscripts accepted (double blind peer review - acceptance rate for publication on average is between thirty and forty percent) and presented at the annual conferences are published. The WACRA® NEWSLETTER informs members about ongoing research projects, employment (exchange) opportunities, new publications and releases, curriculum development and other developments in interactive pedagogy. WACRA® supports and cooperates with national Case Method Organizations, with Case Clearing Houses worldwide.

Affiliated Associations

Affiliated Associations are BACRA - Baltic Association for Case Method Research & Application at Kaunas University in Panevezys, Lithuania, CZACRA - Czech Association for Case Method Research & Application at Mendel University for Agriculture and Forestry in Brno, Czech Republic and NACRA - North American Case Research Assoc iation at the University of Tampa, Florida, U.S.A.

Advantages of Membership

Membership in *WACRA®* is open to all individuals and organizations wishing to advance the objectives of the association. As a member you receive the WACRA® NEWSLETTER, substantial discounts on WACRA® publications, preferential rates at all WACRA® sponsored meetings, notices of all activities and calls for papers. As a member you can receive training and assistance in case writing and teaching; once you are a member, payment of full registration fee for any meeting includes membership in WACRA® for the following calendar. You have the opportunity for networking, consulting and to associate with other professionals working with cases, simulations and games on a truly international scale.

Membership

Membership in WACRA® is open to all individuals and organizations in all countries who wish to advance the objectives of the association and to advance professional standards in the field. The various classes of membership and annual dues which provide for the continuing support of WACRA®, are as follows:

Regular Member US $65: Any individual (teacher, researcher, government official or representative, business executive, attorney, consultant) who wishes to assist actively in attaining the goals of WACRA®.

Organization Member US $350: A special class of membership through which other existing associations or organizations can lend their support in meeting the goals of WACRA®. Organizations eligible for this class of membership include foundations, educational, governmental units, professional, business, and industrial groups.

Sustaining Member US $500: A special class of membership available to any individual or organization wishing to offer more substantial financial support to WACRA®.

Associate Member US $55: Advanced students.

You are cordially invited to join, to participate and to share your expertise and experiences with colleagues from around the world.

WACRA® en quelques mots

Fondée en 1984, WACRA® est à l'origine une organisation où des professeurs, des chercheurs, des preneurs de décision, des professionnels et des gens d'affaires se rencontraient. Elle est ensuite rapidement devenue une association internationale et interdisciplinaire qui accueille des professionnels et des universitaires de 50 pays.

WACRA organise des symposiums, des ateliers, des sessions de formation, des conférences et chaque année un congrès international où les membres peuvent échanger leurs idées, présenter leurs travaux de recherche et leurs cas. Toute personne ou toute organisation qui souhaite faire progresser les objectifs de l'association peut devenir membre.

Au cours des dernières années, le congrès annuel s'est tenu à Lausanne (Suisse), Londres (Angleterre), Boston (Etats Unis), Enschede (Pays Bas), Berlin (Allemagne), Prague (République Tchèque), Limerick (Irlande), Bratislava (Slovaquie) et Vienne (Autriche), Montréal (Canada), Leysin (Suisse), Varsovie (Pologne), Edimbourg en Ecosse (Scotland), Marseille (France) et Cáceres, Espagne. En 2000 l'Université de l'Europe Centrale (Central European University) à Budapest, Hongrie qui accueillait les membres du 2 au 5 juillet 2000. Pour l'année 2001, l'Université de Lund, à Lund, Suède reçevera la WACRA du 17 au 20 juin, 2001. Les activités du congrès auront lieu en Suède, Danemark et Norvège. Pour ceux qui prefèrent la planification à long term, des sites à Cuba, en Allemagne, en Grece et au Japon pour des prochaines rencontres, seront évaulués.

Plusieures associations affilliées sont nées au fil des ans. Celles-ci comprennent BACRA - Baltic Association for Case Method Research &Application - à l'Université technologique Kaunas à Panevezys en Lituanie. CZACRA - Czech Association for Case Method Research & Application - à l'Université d'Agriculture Mendel à Brno en République Tchèque et enfin NACRA - North American Case Research Association - à l'Université de Tampa à Tampa en Floride, Etats Unis.

Ces différentes associations ont un même objectif qui est la promotion de la méthode des cas comme outil pédagogique privilégié utilisé dans l'enseignement, la formation et la planification. Ces associations cherchent également à encourager la méthode des cas comme outil de recherche et à coordonner les activitées d'écriture de cas. Elles facilitent également la coopération entre le secteur public, la communauté des gens d'affaires et les professionnels qui utilisent la méthode des cas. Plus récemment, les jeux, simulations et autres méthodes interactives d'apprentissage et d'enseignment sont venus s'ajouter à la méthode des cas.

Les membres reçoivent le Bulletin de l'association (WACRA® NEWSletter), des rabais intéressants sur toutes les publications faites par WACRA®, des taux préférentielles sur toutes rencontres commanditées par WACRA®, ainsi qu'une mise à jour de tous les événements et demandes d'articles. Les membres peuvent faire des stages et recevoir de l'aide aussi bien pour rédiger un cas que pour enseigner en utilisant cette méthode. Ils peuvent bénéficier du réseau WACRA®, consulter et s'associer avec d'autres membres qui utilisent la méthode des cas à l'échelle internationale.

¿WACRA®?

Creada en 1984, WACRA® se componía al principio de un grupo de profesores, investigadores, tomadores de decisíon, profesionales y ejecutivos. Al pasar los años el grupo se transformó en una asociación internacional e interdisciplinaria de profesionales y académicos que pertenecen a 50 países.

WACRA® organiza foros, simposios, talleres, sesiones de formación y conferencias. Además cada año la asociación ofrece su congreso international. Durante cuatro días los congresistas tienen la posibilidad de intercambiar ideas, presentar sus trabajos de investigación y comunicar el resultado de sus trabajos de escritura. Cada persona u organización que quiere favorecer los objetivos de la asociación puede ser miembro.

Los congresos anteriores se hicieron en Lausanne (Suiza), Londres (Reino Unido), Enschede (Países Bajos), Boston (Estados Unidos), Berlín (Alemania), Praga (República Checa), Limerick (Irlanda), Bratislava (Eslovaquia) y Viena (Austria), Montreal (Canadá), Leysin (Suiza) y Varsovia (Polonia), Edimburgo (Escocia), Marsella (Francia) y Cáceres (España). En 2000, la Universidad de Europa Central (Central European University) en Budapest, Hungaria recibo a los congresistas del 2 al 5 julio de 2000. En el año 2001 la Universidad de Lund, en Lund (Suecia) auspiciará la conferencia. 'Advance Planning' (planificación avanzada) incluye actividades en Suecia (lugar principal de la conferencia), Dinamarca y Noruega. Para aquellos a quien en realidad le gusta la planificación a largo plazo: localidades en Cuba, en Alemania, Greca y Japón estan bajo consideració para año 2002.

Las asociaciones afiliades son BACRA - Baltic Association for Case Method Research & Application - que está en la Universidad tecnológica Kaunas en Panevezys (Lituania), CZACRA - Czech Association for Case Method Research & Application - está en la Universidad de Agricultura Mendel en Brno (República Checa), NACRA - North American Case Research Association - está en la Universidad de Tampa en Tampa (Florida, Estados Unidos).

Los objetivos de estas asociaciones consisten den promover el uso del método de los casos aplicado a la enseñanza, a las sesiones de formación y de planificación. Las asociaciones se dedican también a valorizar el uso de ese método, a coordinar las actividades de escritura de casos y a favorecer la cooperación entre el sector público, la gente de negocios y los profesionales que utilizan métodos interactivos. El acento inicial ponía el enfoque sobre el método de los casos; desde hace unos años se incluyeron juegos, simulaciones y métodos de formación y de enseñanza interactivos.

Los miembros de la asociación reciben un boletín (WACRA® NEWSletter), descuentos interesantes sobre las publicaciones hechas por WACRA®, tarifas preferenciales para las reuniones organizadas por WACRA®. Los miembros reciben noticias sobre las actividades, solicitudes de artículos y pueden participar a sesiones de formación y recibir asistencia en escritura de casos y enseñanza por este método. Además tienen la oportunidad de formar parte de una red internacional que les permite consultar y asociarse con profesionales que trabajan con casos.

WACRA®

NEWS

Vol.XI No.1

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CALL FOR PAPERS

"Creative Teaching"

VIENNA, AUSTRIA

January 3 - 6, 2001

The 4th "Creative Teaching" conference provides opportunities for participants to learn from and to share with experts and colleagues innovative creative teaching approaches and methods. The emphases are on "Teaching and Learning" through interactive workshops and by sharing of research and teaching/training applications. The methods discussed and presented include the case method and related instructional approaches in a variety of educational settings including distance learning. Participants will have ample opportunity to meet colleagues from around the world with whom they can forge research/teaching partnerships. ACT and WACRA® conferences are interdisciplinary, multinational forums for scholars in the disciplines and professional fields such as business, education, engineering, law, medicine, public policy, social work and practitioners in business and industry, education and government.

Papers are solicited that report on Creative Teaching practices and proposals. Priority will be given to papers that are innovative, interdisciplinary, and/or international. Papers reporting the application of creative teaching and learning in university and professional training programs in diverse settings and papers on the evaluation of such methods and its related forms for teaching and learning are encouraged.

Proposals and papers will be evaluated through a blind peer review process on the basis of (a) originality; (b) the appropriateness of the topic for an interdisciplinary audience; (c) the technical adequacy of the inquiry; and (d) the contribution to the understanding of teaching/learning issues.

Submissions should include three copies of the (1) a cover page including: title, name, affiliation, address, tel. & fax numbers and e-mail address of the author(s), (2) a proposal summary (not exceeding 4 pages) or the completed paper (not exceeding 15 pages). Download the manuscript guidelines from our web site below . The summary should state clearly the objectives, the framework, and the nature of the proposal and be responsive to the criteria used for review. The name of the author(s) should not appear on the summary page to facilitate the blind peer review.

Include two stamped, self-addressed envelopes (for submissions from outside the U.S.A. include a Post Office International Answer Coupon) which will be used to acknowledge receipt of the proposal/paper and the results of the review. **All proposals and papers are due on or before November 8, 2000.** ***Completed papers received prior to December 1, 2000*** will be considered for publication. **Conference registrations are due on or before November 14, 2000.** For further details, including discounts on airfares, visit our web site or contact us directly.

ACT - WACRA®

ACADEMY FOR CREATIVE TEACHING and
THE WORLD ASSOCIATION FOR CASE METHOD RESEARCH & APPLICATION
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Please post or share this invitation with colleagues!

CALL FOR PAPERS
CASE METHOD

RESEARCH AND APPLICATION (INCLUDING CASE WRITING)

18th INTERNATIONAL CONFERENCE at LUND UNIVERSITY

Lund, Sweden

June 17 - 20, 2001

"CASE METHOD TEACHING AND DISTANCE LEARNING"

With Cases, Multimedia, Simulations, and Other Interactive Methods

The case method can play an important role in solving problems and in teaching problem-solving, as well as in initiating and managing change. Thus this conference provides opportunities for participants to learn more about teaching using the case method and related instructional approaches in a variety of educational settings. Participants will have ample opportunity to meet colleagues from around the world with whom they can forge research partnerships. WACRA® conferences are interdisciplinary multinational forums for scholars in the disciplines and professional fields (such as business, communication, education, engineering, history, law, medicine, psychology, public policy, social work) and practitioners in business and industry, education and government.

Papers are solicited that analyze theory and practice using cases, simulations, videos and related instructional methods for problem solving, managing change and innovation. Priority will be given to papers that are interdisciplinary, international, and/or comparative. Papers reporting the application of cases in university and professional training programs in diverse settings and papers on the evaluation of the case method and its related forms for teaching and learning are encouraged. Contributions investigating challenges (and suggesting solutions) faced by business are also solicited. Proposals for case writing & development and actual cases placed in diverse settings are invited, e.g. joint-cross-cultural cases. While a main focus of the WACRA conferences is on using cases for teaching and problem-solving, scholarly papers that report research using the case method are welcome. WACRA is particularly interested in scholarly papers that enhance the understanding and collaboration between and among disciplines and international partners. The most innovative presentation and the outstanding paper are recognized.

Submissions should include three copies of the (1) a cover page including: title, name, affiliation, address, tel. & fax numbers and e-mail address of the author(s), (2) a proposal summary (not exceeding 4 pages) or the completed paper (not exceeding 15 pages). Download the manuscript guidelines from our web site below . The summary should state clearly the objectives, the framework, and the nature of the proposal and be responsive to the criteria used for review. The name of the author(s) should not appear on the summary page to facilitate the blind peer review.

Include two stamped, self-addressed envelopes (for submissions from outside the U.S.A. include a Post Office International Answer Coupon) which will be used to acknowledge receipt of the proposal/paper and the results of the review. **All proposals and papers are due on or before January 15, 2001**. ***Completed papers received prior to* January 15, 2001** will be considered for publication. For further details visit our web site or contact us directly

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DEMANDE D'ARTICLES
MÉTHODE DES CAS
RECHERCHE, APPLICATION ET ÉCRITURE

DIX-HUITIÈME CONGRÈS INTERNATIONAL à LUND UNIVERSITY

LUND, SUÈDE
du 17 au 20 juin 2001

"LA MÉTHODE DE CAS ET L'ENSEIGNMENT Á DISTANCE"
avec cas, multimédia, simulations et autres méthodes interactives

La méthode des cas peut jouer un rôle important lorsqu'il faut résoudre des problèmes et enseigner à résoudre des problèmes tout comme lorsqu'il faut entreprendre et gérer le changement. Par conséquent ce congrès offre aux participants la possibilité d'apprendre plus sur l'enseignement par la méthode des cas et les méthodes d'enseignement apparentées dans des situations éducatives variées. Les participants pourront rencontrer des confrères du monde entier et développer des partenariats de recherche et d'enseignement. Les congrès de WACRA sont des forums interdisciplinaires et multinationaux pour des universitaires dans des disciplines traditionnelles et des domaines professionnels comme la gestion, la communication, l'éducation, l'ingénierie, l'histoire, le droit, la médecine, la psychologie, l'administration publique, le travail social et pour des praticiens dans le domaine des affaires et de l'industrie, de l'éducation et du gouvernement.

Nous sollicitons des articles qui analysent la théorie et la pratique en se servant de cas, de simulations, de vidéos et de méthodes d'enseignement apparentées pour résoudre des problèmes et gérer le changement et l'innovation. Nous donnerons la préférence aux articles interdisciplinaires, internationaux et/ou comparatifs. Nous encourageons les articles qui décrivent l'utilisation de cas à l'université et dans des programmes de formation professionnelle, lors de situations variées, ainsi que les articles qui traitent de l'évaluation de la méthode des cas et de ses différentes formes utilisées dans un contexte d'enseignement et d'apprentissage. Nous aimerions recevoir des contributions qui documentent les défis (et les solutions proposées) que rencontrent les gens d'affaires. Nous acceptons des textes sur l'écriture de cas et son développement ainsi que des cas réels décrivant des situations variées comme, par exemple, des cas interculturels. Même si lors des congrès nous mettons l'accent sur la méthode des cas comme une méthode d'enseignement et une méthode pour résoudre les problèmes, nous acceptons également des articles académiques qui décrivent la méthode des cas comme une méthode de recherche. WACRA s'intéresse particulièrement aux articles académiques qui améliorent notre compréhension de la collaboration qui existe entre et parmi les partenaires internationaux. Nous soulignerons la présentation la plus innovatrice ainsi que le meilleur article.

Vous devez soumettre vos projets en trois exemplaires de (1) la page couverture qui renferme les renseignements suivants sur le ou les auteurs: titre, nom, institution, adresse, numéros de téléphone et fax, adresse électronique, (2) un résumé du projet (qui ne doit pas dépasser 4 pages) ou de l'article terminé (qui ne doit pas dépasser 12 pages). Pour d'autres informations sur la rédaction de votre manuscrit, veuillez vous reporter à notre site internet dont l'adresse vous est donnée un peu plus bas. Le résumé doit indiquer clairement les objectifs, la structure et la nature du projet et répondre aux critères cités plus haut. Le nom du ou des auteurs ne doit pas apparaître sur la page résumé pour garantir le processus d'évaluation anonyme.

Joignez deux enveloppes pré-affranchies, portant vos nom et adresse (pour les projets venant de l'étranger, veuillez joindre deux coupons postaux internationaux). Nous utilisons ces enveloppes pour accuser réception du projet et pour vous informer des résultats de l'évaluation. **Tous les projets et tous les articles doivent nous parvenir au plus tard le 15 janvier 2001**. ***Les articles terminés et reçus avant le 15 janvier 2001*** pourront faire l'objet d'une publication. Pour plus d'informations, veuillez consulter notre site internet ou contactez nous directement

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Merci d'afficher ou de partager cette invitation avec vos confrères!

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SOLICITUD DE ARTÍCULOS
MÉTODO DE LOS CASOS

INVESTIGACIÓN, APLICACIÓN Y REDACCIÓN
DECIMOSEPTIMO CONGRESO INTERNACIONALUNIVERSIDAD DE EUROPA CENTRAL

LUND, SUECIA

del 17 al 20 de Junio de 2001

"ENSEÑANZA CON CASOS Y A DISTANCIA"

con casos, multimedia, enseñanza de distancia, simulaciones y otros métodos interactivos

El método de los casos puede desempeñar un papel importante cuando se trata de resolver problemas y enseñar a resolverlos; es importante también cuando se trata de emprender y administrar cambios. Por lo tanto, este congreso ofrece a los participantes la posibilidad de aprender aún más sobre la pedagogía utilizando este método y métodos de enseñanza relacionados con él, en diferentes situaciones educativas. Los participantes tendrán la oportunidad de conocer a colegas de otros rincones del mundo, con quienes podrán desarrollar grupos de investigación y de enseñanza. Los congresos de la WACRA son foros interdisciplinarios y multinacionales para todos los catedráticos de las disciplinas y de los sectores profesionales que incluyen la administración de los negocios, la comunicación, la educación, la ingeniería, la historia, el derecho, la medicina, la sicología, la administración pública, el trabajo social y los profesionales dedicados a los negocios y a la industria, a la educación y al gobierno.

Se solicitan artículos que analicen tanto la teoría como la práctica, mediante el uso de casos, simulaciones, videos y otros métodos de instrucción relacionados con la solución de problemas, la administración del cambio y la innovación. Se dará prioridad a los artículos interdisciplinarios, internacionales y/o comparativos. Se favorecen artículos que discutan y situen la aplicación de casos en la universidad y en los programas de formación profesional en varios contextos y artículos que evaluen el método de los casos. Se aceptan artículos que traten de los desafíos (con posibilidad de soluciones) que encuentran los hombres de negocios y artículos que involucren la redacción y el desarrollo de casos verdaderos en situaciones diferentes (por ejemplo casos interculturales). Aun si el enfoque de los congresos de la WACRA es el método de los casos y el uso de este método como un instrumento de enseñanza y de ayuda a la solución de problemas, consideramos artículos académicos que situen el uso de este método en el campo de la investigación. La WACRA está particularmente interesada en artículos académicos que aumenten nuestro conocimiento de la colaboración que existe entre los miembros de los organismos internacionales. Se tiene previsto señalar la presentación más innovadora y el artículo más relevante.

Los proyectos presentados deben incluir tres copias de (1) la portada con las informaciones siguientes sobre el o los autores: título, nombre, institución, dirección, números de teléfono y fax, dirección electrónica, (2) un resumen del proyecto (que no exceda 4 páginas) o el artículo terminado (que no exceda 15 páginas). Véase las informaciones tocante a la redacción del manuscrito en nuestra página Web. El resumen debe indicar con claridad los objetivos, la estructura, la naturaleza del proyecto y corresponder a los criterios mencionados más arriba. El nombre del autor o autores no debe figurar en el resumen para proteger el sistema de evaluación anónima de los diferentes proyectos.

Mande dos sobres franqueables con su respectivo nombre y dirección (para los proyectos que vienen del extranjero, mande dos cupones de correo internacional). Se utilizan los dos sobres para acusar recibo del proyecto y para informarle del resultado de la evaluación. **Se deben recibir todos los proyectos y artículos antes del 15 de enero de 2001**. Una posibilidad de publicación se ofrece para ***los artículos terminados que se reciben antes del 15 de enero de 2001***. ¿Necesita más informaciones? Visite nuestra página Web o llame directamente

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SAMPLE PAGE - TITLE OF THE PAPER

Hans E. Klein
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NEEDHAM, MASSACHUSETTS, U.S.A.

Abstract

This is a sample page containing a sample abstract, short sample body, and references. Front and back of this instruction sheet are printed in Geneva Regular 10 pt (sans serif) and **Geneva Bold 10 pt (IBM PC)** fonts, except for the paper title on this page: **Times New Roman Bold 14 pt**. Notice how this abstract is indented .5 INCHES from both the left and right margins (which are both 1"). All headings (except third-level headings as below) including headings for "**TABLE 1, FIGURE 1, APPENDIX A**" etc. should be typed in upper case characters and bolded.

KEYWORDS: Provide descriptors of the main topics, e.g. Computer Literacy, Infrastructures, Trainers, International cooperation.

INTRODUCTION - FIRST-LEVEL HEADING

Above is an example of a first-level heading. Below is an example of a second-level heading. At the end of a sentence, after the period, insert **two** blank spaces. Use the "full" justification feature (left and right side aligned).

SECOND-LEVEL HEADING

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REFERENCES

Chow, C., "The Effects of Job Standard Tightness and Compensation Scheme on Performance: An Exploration of Linkages," Accounting Review (October 1983), pp. 667-685.

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